Sector Based Environmental Protection
Action Plan

Purpose

This Action Plan represents a new direction in the Agency's cumulative efforts over the past several years in sector-based environmental protection (SBEP). It draws on the Agency's experience with sectors in regulatory, voluntary, and reinvention programs, including but not limited to the Common Sense Initiative (CSI), the Sustainable Industry Program, the Design for the Environment Program, Compliance Assistance Centers, and others. This Plan identifies principles to guide the use of the sector-based approach and outlines what the Agency will do differently in the future to integrate this approach into our toolbox for solving environmental problems. The goal of this Plan is to incorporate the use of sector strategies into the core functions of the Agency and ensure that they are applied where they are appropriate to help us find efficient, effective solutions to environmental problems. This will include the full range of regulatory activities from rulemaking through research and development and international cooperation.

EPA uses a broad definition of "sectors" in this Action Plan — a sector is defined as a discrete production system within the U.S. economy. This definition is not confined to traditional manufacturing industries, but also includes other businesses and the growing services sectors. This is consistent with the changing classification system for sectors that has been recently adopted through an international agreement (see Appendix A for details).

EPA's approach to sector-based work is flexible, encompassing regulatory and non-regulatory activities, single-media and multi-media considerations, and single-stakeholder to multi-stakeholder involvement. It will work in concert with other tools, such as community-based approaches, to solve national, regional, or local problems (e.g., sectors that contribute to watershed problems).[1] This Action Plan recommends that the Agency continue using this full array of sector models as we pursue enhanced SBEP activities in the future.

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[1] SBEP can and should work in concert with EPA's other cross-media tools, including chemical-specific activities, place-based or community-based environmental protection (CBEP), and pollution prevention. For example, the Persistent, Bioaccumulative Toxic Chemical Initiative (PBTI) includes both sector-based and place-based solutions. Assessing when and if a sector based approach is appropriate is described in Appendix C.

The Value of Sector-Based Approaches to Environmental Protection

Many of the benefits of using a sector-based approach are derived from the comprehensive focus that is possible. SBEP provides an opportunity for integrated multi-media analysis of environmental issues affecting specific sectors and development of solutions that   address these issues more cost-effectively and with the better environmental results. Because it is comprehensive, SBEP promotes pollution prevention and discourages cross-media pollution transfers. And because it yields more precise, up-to-date information based on information exchanges, SBEP can lead to voluntary, better-than-compliance performance goals, as demonstrated by the CSI Metal Finishing Strategic Goals Program (SGP).[2]

The sector-based approach can lead to better environmental results by focusing on substantive environmental problems with sector-based solutions that have a broad base of support among all relevant stakeholders. Building such support helps to avoid barriers and problems which can affect implementation and measurable environmental progress. SBEP also can improve the effectiveness and efficiency of core Agency functions such as permitting, rulemaking and policy development, compliance and enforcement, solving regional problems, building partnerships, research, and international activities. By taking a strategic view of a problem, regulators, the regulated community, and other stakeholders can see how proposed actions relate to one another and better understand how they fit within the overall regulatory system.

Sector-based activities offer different benefits to various participants. For example,

S   *EPA and other co-regulators such as State, Local and Tribal governments* can use sector-based approaches to assist in setting priorities among tasks essential to their missions such as: gathering higher quality information from the regulated industry; testing responses to proposed regulations and other initiatives; identifying potential technical, cost, and other barriers to these proposed regulations early in the process and developing ways to overcome them. Sector approaches may also be helpful in identifying regulatory opportunities that can improve environmental performance or that

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[2] One of the most significant projects that the metal finishers have underway is the Strategic Goals Program (SGP). This is a first-of-its-kind sector program that sets voluntary, better-than-compliance, performance goals for metal finishing facilities. Participating metal finishers will utilize pollution prevention approaches of their choosing to achieve the program's resource utilization, emission reduction, and economic efficiency goals. The facility performance targets are linked with a comprehensive set of action commitments by EPA, state governments, POTWs, nongovernmental organizations, and national industry trade groups. The SGP set its sector-wide and facility-based performance targets for the Year 2002 from 1992 baselines. Within 5 years, participating metal finishing firms pledge to become: (a) *cleaner* by reducing hazardous TRI organic emissions by 90 percent, cut metals emissions to air and water by 50 percent, and reduce hazardous sludge disposal by 50 percent; (b) *cheaper* by saving money and providing economic advantages by reducing by 50 percent costs of unnecessary reporting, permitting, and monitoring; and © *smarter* by conserving resources through a 98 percent metals utilization on products, 50 percent reduction in water use, and 25 percent reduction in energy use.

offers the potential for going beyond compliance. Although using a sector-based approach can add time and effort early in the process, this is often paid back with fewer surprises later, including costly litigation.

S   ***Regulated industries*** find that the sector-based approach offers a different way of approaching and gaining access to EPA. Sector-based activities provide a forum for discussion and presentation of the industry perspective that puts the proposed initiative in context. It offers an opportunity for regulated entities to work prospectively rather than retrospectively on environmental issues. This allows them to address their environmental management responsibilities in a more comprehensive and effective manner.

S   ***Non-governmental organizations and other stakeholders*** gain access to discussions and decision making through sector-based activities. Sector-based activities also offer an important opportunity for gaining knowledge and understanding of specific sectors that may not otherwise be available. Some sector-based activities also provide a neutral forum for discussions among stakeholders; these discussions can raise understanding on all sides and can also lead to the development of "win-win" solutions. Appendix B presents more details on SBEP benefits and values.

Background

In their February 23, 1998, memorandum,"New Actions for Sector-based Environmental Solutions," the EPA Administrator and Deputy Administrator directed the Office of Reinvention (OR) to lead the Agency's senior management team in developing an Action Plan and implementing an Agency-wide sector approach. As a first step in preparing this Plan, OR surveyed nearly 30 different EPA Headquarters and Regional activities. EPA has used or tested a variety of sector-based approaches through CSI projects and other Agency activities, and it is clear these approaches offered value for improving environmental management. Table 1 lists the Agency-sponsored, sector-based projects identified during OR's research.

OR also reviewed various CSI evaluations—including an independent contractor study, a General Accounting Office (GAO) review, and two National Academy of Public Administration evaluations. The lessons learned from this research can be found in Appendix B. With these evaluations as background, OR also prepared issue papers on subjects such as management issues, opportunities for action, the future role of the CSI Council and Sector Subcommittees, stakeholder involvement, and state needs. This Action Plan incorporates suggestions made by the CSI Council and the Agency in their review of these issue papers.

This Plan describes how the issues identified in the February 23, 1998 memorandum will be addressed. Following is a list of those issues and the actions to address them:

\#   initiating select, new multi-media rulemakings and enhancing coordination of existing rulemakings involving sectors (see Actions A2 and B2);

\#   developing new analytical capabilities throughout the Agency to understand and evaluate a range of environmental, economic, and social issues associated with individual sectors (see Actions A5, A6, B3, B4, C2 and Appendices B and C);

\#   providing clear access to the Agency on sector-specific issues, such as single points of contacts or developing cross-media teams for select sectors (see Actions B2 and C3);

\#   creating new and lasting capabilities to engage stakeholders in sector processes (see Action A3, A4, A5, A7, C1 and C4); and,

\#   building an EPA management structure that supports sector-based activities, including coordination of various technical assistance opportunities (see Actions B1 and B2).

This Plan describes how these and other actions will enable Agency decision-makers to determine *when, where* and *how* sector-based approaches may be the most efficient and effective means for addressing public health and environmental protection problems.

The actions identified in this Plan will require the joint efforts of EPA (Headquarters and Regions) and other governmental and non-governmental stakeholders, including regulated sectors. EPA's Reinvention Action Council (RAC) and OR will assist the Agency in the implementation of this Plan.[3] It is expected the Agency will intensify its SBEP efforts over the next two fiscal years to allow for an orderly transition to an integrated and increased focus on this important and useful approach.

Management Principles for Evaluating SBEP Approaches

It is important for EPA managers and staff to be able to assess routinely when a sector-based approach is — and is not — appropriate and which of the various sector-based models would be most

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[3] EPA's Reinvention Action Council (RAC) was created in 1996 by the Deputy Administrator as a cross-Agency task force of senior career managers from the program and regional offices to help guide the development of reinvention efforts within the Agency. The RAC is charged with ensuring significant legal and policy issues are brought to resolution; stakeholders have easy access to information and the opportunity to provide meaningful input; and people and organizations outside the Agency receive timely answers to their reinvention proposals, questions and requests.

effective in achieving the desired results. The following principles should assist Agency managers and staff in their selection and use of sector-based approaches.

<   **Recognize SBEP as one of many tools available to EPA and select the tool(s) that will be most effective in achieving the desired objectives.** The sector-based approach is one of many tools available to address environmental problems and is better for some situations than others. Alternative tools that are available and being used in the Agency include chemical-specific approaches and community-based or place-based environmental protection. SBEP is a *means* to an end, not an end in itself. The sector approach is not intended to create work; instead it is a tool to help EPA do its work better. Critical analysis should be conducted to determine the value and feasibility of using a sector-based approach in EPA's various activities. This Action Plan commits the Agency to use a strategic approach that is based on selecting the most appropriate, most effective tool for every task.

<   **Use comprehensive sector-selection criteria for identifying Agency actions.** Determining when and if to use a sector based approach, like other environmental tools, requires a rigorous and thoughtful process. Appendices B and C identify questions and suggest processes for determining when it is most appropriate to select the sector approach. Appendix C presents criteria for determining when a sector based approach is appropriate and for selecting specific sectors. The most significant of these criteria include: (1) the importance of the environmental impact or problem to be addressed; (2) opportunities for regulatory improvement (including development of new regulations, reduction of burden and improved environmental results in existing regulations); (3) the value of using a sector approach and the opportunities for improvement that this approach presents (including compliance improvement and risk reduction); (4) existence of an identifiable "sector"and sector representatives; and (5) interest and willingness of sector representatives and other related stakeholders in participation. The processes and criteria outlined in Appendix C were used in developing actions in Category A of this Plan — implementing sector-based approaches with core Agency functions.

<   **Establish clear objectives for the SBEP activity**. A sector-based activity should be undertaken with clear objectives and expectations, in terms of its process and outcomes. These objectives should be linked to specific Agency decisions or accomplishment of specific tasks and, ultimately, achievement of the Agency's strategic goals. Design of the SBEP activity follows from these objectives.

<   **Match the appropriate sector model to the sector-based environmental solution.** There are a wide spectrum of sector models (e.g., single media, multi-stakeholder, multi-media, multi-stakeholder, etc.) that have been used across EPA — one size does not fit all. Appendix C identifies criteria that should be used to determine which sector-based model is most appropriate. Not all sector-based work needs to be conducted like the CSI process. There have been many successes in CSI, as represented by the more than 20 recommendations

submitted to the Agency for action. Some participants believe that CSI's process resulted in high transaction costs, due to the lack of clear goals and procedures in the beginning and the definition of consensus-based decision making that was used; other participants believe that the value of this process in terms of stakeholder involvement and avoidance of future transaction costs, such as litigation, justify the time and resources that were required. Within EPA, other sector-based models also have been used successfully, such as the single media, multi-stakeholder approach used in hazardous air pollutant and effluent guideline rulemaking. EPA and other co-regulators need to retain flexibility to identify and select the sector-based model that is most appropriate for the task at hand.

<   **Employ collaborative processes to ensure beneficial results.** SBEP provides an opportunity for meaningful stakeholder participation in Agency decisions and processes. There are many benefits to involving stakeholders, including identification of innovative solutions to environmental problems, recognition of potentially sensitive issues, and buy-in for implementing negotiated agreements. Stakeholders also bring greater credibility to environmental decision making. A recent Presidential/Congressional Commission concluded that stakeholder collaboration is particularly important because there are many conflicting interpretations of the significance of environmental risks and collaboration provides opportunities to bridge gaps in understanding, language, values, and perceptions.[4]

This Plan encourages the appropriate use of stakeholder involvement in sector activities. A separate Stakeholder Action Plan is being developed that outlines cross-Agency actions that will strengthen the use of more effective stakeholder processes in environmental decision making.

<   **Build on lessons learned from past sector-based activities to enhance success**. EPA's experience has provided helpful lessons on which sectors are more appropriate for sector-based activities, how stakeholders should be selected, what types of planning and preparation increase likelihood of success, and the advantages and disadvantages of different processes for managing sector-based work. EPA has learned that different industries may prefer different types of sector-based approaches. Some of these lessons are presented in Appendix B.

What EPA Will Do Differently in Sector-Based Actions

Over the next two years (FY1999 and FY2000), EPA will pursue accelerated sector-based activities and work to integrate these activities into the fabric of the Agency. These activities will fall into three categories:

<   **Category A** —Implement sector-based approaches within core Agency functions;

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[4] The Presidential/Congressional Commission on Risk Assessment and Risk Management, *Final Report Volume 1: Framework for Environmental Health Risk Management,* Washington, DC, March 1997.

<   **Category B** — Build management and analytical capacity to conduct SBEP, and;

<   **Category C** — Craft sector-based solutions with external stakeholders.

Starting in FY1999, the Agency will implement several high priority, cross-cutting actions to demonstrate its continued commitment to the sector-based approach. In addition, the Agency will address current barriers to sector-based work by building management and analytical capacity to increase the success of future Agency-sponsored, sector-based actions. Finally, the Agency will strengthen partnerships, using the expertise of stakeholders to craft sector-based solutions to environmental problems. Table 2 summarizes the actions identified in each of these three categories.

To encourage the use of SBEP within the Agency and to ensure that existing CSI efforts are completed in a timely manner, the Agency will continue to devote resources (both FTE and program dollars) for FY 1999 and 2000 that were designated previously for CSI activities. These resources will be available to:

<   complete current CSI commitments, primarily in the metal finishing, printing, and petroleum refining sectors;

<   support the transition of the CSI Council to a FACA-chartered Standing Committee on Sectors; and

<   help establish new sector-based initiatives, including the actions listed in this Plan.

Recognizing that there is sector work that falls outside of this plan, the Agency will continue to provide resource support to sector programs and efforts that help us meet the Agency's strategic goals.

Action A. Implement sector-based approaches within Agency Core Functions

Action A (1): *Permitting:* **work with the regions and states to implement sector-based permitting projects**

EPA will pilot the use of a sector-based approach in the Pollution Prevention in Permitting Program (P4) which seeks to incorporate operational flexibility and pollution prevention into permits. Facility-specific P4 permits will serve as models for other companies within a sector. These pilots will also provide critical input to the development of future permit-compatible regulations applicable to the sector. The first such effort is currently being developed in conjunction with the pharmaceutical industry. By linking P4 into both Title V permits and MACT (Maximum Achievable Control Technology) standard development, EPA can ensure alignment between the Title V permit framework (which incorporates pollution prevention and operational flexibility) and new applicable requirements the sector will be required to address. With this alignment, the MACT standard can enhance rather than limit operational flexibility and pollution prevention.

EPA also will develop sector-based permit models using examples from the Sustainable Industry Program (e.g., metal finishing and batch chemical manufacturing).[5] These models will help expand the P4 concept to other media permitting efforts.

EPA will work with the Massachusetts Environmental Results Program (ERP) within Project XL to explore permit innovations focused on small business. The ERP offers plain language workbooks, compliance assistance and self certification opportunities that promote pollution prevention and environmental accountability in lieu of traditional state-issued permits.

Action A (2): *Rulemaking:* **identify and initiate coordinated rulemakings**

EPA will identify rulemakings where a sector-based approach would be appropriate, particularly coordinated rulemakings that would involve cross-Agency effort. Although specific decisions have not been made, potential rules suggested by the program offices for action during FY1999 include industrial laundries, POTW sewage sludge issues, and transportation unit clean-outs. Discussions are underway with the responsible Agency offices to determine how the planned regulatory efforts within these sectors (e.g., laundries, local government, and modal transportation, respectively) may be better coordinated. The Agency will seek collaborative stakeholder involvement in any coordinated rulemaking efforts.

Action A (3): *Enforcement and Compliance Assurance*: **Implement sector activities to achieve a higher level of efficiency in enforcement and compliance within priority sectors.**

The Office of Enforcement and Compliance Assurance (OECA) is working with the Regions and states to develop sector activities to enhance commitments for priority sectors. OECA has established criteria for selecting these priority sectors that are consistent with criteria outlined in Appendices to this Plan.[6] These sector activities will use a mix of methods to assure compliance within these sectors, including compliance assurance, incentives, and traditional

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[5] Sustainable Industry (SI) is one of EPA's partnership programs that focuses on creating incentives and removing barriers to achieve enhanced environmental results. The EPA Office of Policy manages the sector-based SI Program with the complementary goals to promote voluntary industry stewardship, improve the effectiveness of EPA regulations, and achieve better environmental outcomes. Current SI sectors include metal finishing, specialty batch chemical manufacturing, food processing, metal casting, tourism and recreation, photo processing, and the environmental technology industry.

[6] Selected sectors will be drawn from the three national sectors (e.g., petroleum refining, dry cleaners, and nonferrous metal smelters) and the eight significant sectors (e.g., pulp mills, agricultural practices, industrial organic chemicals, chemical preparation, municipalities, iron and steel products, auto service/repair shops, and coal-fired power plants) that OECA targeted in their FY1998/1999 Memorandum of Agreement (MOA) Guidance to the Regions and States. Criteria that OECA used in selecting these sectors included high non-compliance rates; high volume TRI releases; carcinogenic emission releases; and significant presence and impact in most Regions. For additional information see the OECA Website on FY1998/1999 MOA Guidance.

enforcement. This will include training and compliance guides to help sectors understand new regulations, sending letters to facilities encouraging them to perform audits and acknowledge areas of noncompliance in exchange for reduced penalties under the EPA audit policy, and inspections with enforcement actions with full penalties if appropriate. An example of this is the work of EPA Region IV and their states with Publicly Owned Treatment Works (POTWs) to encourage voluntary audits. Other examples include OECA's multimedia compliance incentive project with the chemical industry and the EPA Region I's creation of sector-based compliance assistance teams (New England Environmental Assistance Team or NEEAT).

Action A (4): *Solving Regional Problems:* **Implement sector-based projects to address regional priority problems.**

Sector-based approaches can be used strategically to address high priority environmental problems identified at the regional level as well as the national level. Each Region, working with its state partners, will enhance its capacity to develop and implement sector-based approaches. This capacity includes the ability to prioritize environmental problems, and identify where a sector approach might ensure a better environmental outcome for the region. These approaches will engage key stakeholders and identify and achieve a set of outcomes consistent with GPRA objectives.

Regions and states will be encouraged to work closely with national programs, such as Project XL, the Metal Finishing SGP, the Design for the Environment (DfE) Program, Small Business Compliance Assistance Centers and others in order to benefit from these program capabilities and use their resources more effectively on a local basis. As an example of this approach, Region III is interested in working with its states to characterize and target watersheds where environmental problems exist, identify sectors that are primary sources within the watershed to work with, utilize reinvention tools (such as Project XL) to address problems, and then look to export solutions to that sector in other watersheds. EPA Region IX is working with segments of the agriculture sector and California to deal with nonpoint source problems, and Region X is developing a mining sector strategy with its state partners to identify and prioritize issues, develop and implement tools to solve local problems and then monitor results.

Action A (5): *Building Voluntary Partnerships:* **Partner with the private sector to improve environmental performance.**

EPA will continue to implement voluntary sector-based partnerships in priority sectors. First and foremost, EPA will fulfill its commitments to CSI efforts initiated in the metal finishing, printing, and petroleum refining sectors. Under the Metal Finishing SGP, for example, the

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Agency has committed to support the "better than compliance" performance goals for the industry.[7] This will continue to be done with the help of involved stakeholders.

Environmental performance measures and benchmarks can be used to better understand specific sectors and to identify best options for sector-based environmental protection. Working with stakeholders, including industry organizations, EPA will initiate efforts to identify best practices, benchmarks, voluntary performance measures and industry frameworks for sector-based approaches to improved industrial environmental performance, where appropriate. In particular, EPA will evaluate the measurement and benchmarking approaches being set up for the Metal Finishing SGP and will refine that model and make use of it, as appropriate, in other industry sector programs. These performance measures and benchmarking efforts can serve as a foundation for identifying pollution prevention and environmental stewardship opportunities.

Under the DfE Program, EPA will work with the foam furniture and sleep products sector, a small-business dominated industry, to seek out alternative solvents that will result in risk reduction. This will involve several regions and states, as there is a high concentration of these manufacturers in certain sections of the country. This is particularly important now, as this industry will soon be affected by upcoming air regulations on solvent substitutes.

EPA will continue to use the Sustainable Industry (SI) Program as an industrial sector "incubator" or "feeder" program to build a foundation of information, relationships and trust with priority sectors. SI has established a systematic process for policy development with interested industry sectors that represent significant and largely unaddressed segments of the American economy (including small business sectors). By involving stakeholders and using analytical processes to identify problems and solutions, this program sets the stage for other coordinated Agency actions. In FY 1999, EPA will work with a number of new sectors in the SI Program, such as the specialty batch chemical manufacturing and tourism and recreation industries. This program also will begin to address technology and innovation barriers in several high opportunity sectors.

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[7] EPA will take the progress of this voluntary program into account when considering or developing future regulations affecting the metal finishing industry. For example, in the near term, EPA is reforming RCRA regulations to allow metal finishing facilities to recover their metal wastes onsite as an alternative to the more costly and burdensome requirement of transporting the waste offsite for treatment. The industry estimates this single regulatory adjustment could help reduce environmental impacts, treatment expenses, and raw material costs.

Action A (6): *Research:* **Looking for new pollution prevention and technology solutions**

 The Office of Research and Development (ORD) will conduct research and verification processes to identify innovative pollution prevention technologies and tools that have the potential to significantly improve environmental performance within a sector, while reducing costs. Examples include: (1) implementation of the National Metal Finishing Environmental Research and Development Plan that was developed under the CSI, including development of risk characterization techniques; and (2) research to identify environmentally benign solvents, such as supercritical water and carbon dioxide, for application in the chemical, coatings, fabric cleaning, and other sectors that now use organic solvents. ORD will work with programs and regions to integrate results into regulatory, compliance and other activities of the Agency.

Action A (7): *International Activities***: Incorporate sector-based approaches into international activities.**

 EPA's Office of International Activities (OIA) will work with regions and program offices to develop sector-based activities to assist in achieving the Agency's strategic goal to reduce global and cross-border environmental risks. Sector-based projects are planned to enhance international cooperation to reduce greenhouse gas emissions and the use of persistent bioaccumulative toxins. OIA also is working with several EPA Offices and others to develop Internet-based sector modules for pollution and environmental management in the food processing, electronics, and iron and steel industries to be located on EPA's Enviroene database. Finally, EPA is working with several international partners to promote program assessment through the use of performance-based metrics and industry benchmarking for various sectors. This effort will be supportive of Action A(5) above.

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Action B. Build management capacity to conduct SBEP

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Action B (1): Implement strategic management of sector-based efforts

 Senior Agency management, through EPA's RAC, will engage in an annual planning process to accelerate the use of sector-based actions to address significant environmental problems. Ongoing programs, such as the SI Program, the DfE Program, compliance and enforcement efforts, as well as activities in the regions and states will provide early indicators to the RAC to assist them in identifying candidates for sector-based actions. These programs can provide the baseline effort in gathering information, building relationships among stakeholders, and conducting specific projects. Input from a Sector-based Advisory Committee also will factor in the development of an annual plan for the Agency. As these programs and external inputs coincide with Agency priorities, they can provide a gateway for launching more comprehensive sector-based efforts. Beyond strategic planning issues, the RAC will be responsible for resolving resource issues and other barriers to the sector-based approach.

Since SBEP is a *means* to an end, not an end in itself, the annual SBEP plan will be designed to integrate sector-based activities into the Agency's new Government Performance and Results Act (GPRA) strategic architecture under the relevant program goals. The RAC will become involved with the Agency's strategic planning process to ensure that SBEP is used to advance our national environmental goals. It will also strive to influence the Agency's multi-year planning process to examine where annual performance goals and measures may help identify opportunities to incorporate SBEP approaches.

Action B (2): Create avenues to share information and analyses

In the past, EPA's sector-based efforts have operated largely in isolation from one another. An Agency-wide sector network has been established to serve as the focal point for information sharing, coordination, and communication on sector issues. This network is composed of a management group (e.g., Reinvention Action Council (RAC) members) and a staff level group led by OR. The network will develop a list of staff resources and academic experts who will be available to help address environmental, economic, or technical/ scientific issues related to sector activities.

A searchable, sector-based Home Page with Internet/Intranet access will be established as a repository for sector-based data and will be linked with other relevant EPA sites. This site will also be used to track regulatory or policy actions and program guidance by SIC and NAICS codes. Effective January 1, 1999, sector-related aspects of rules, policy and program guidance documents must be identified by SIC and NAICS codes to build search capacity and help integrate SBEP in the regions and states. The sector-based network will explore ways of sharing sector-based information with our state partners.

Action B (3): Expand the analytical basis for sector based activities

EPA will expand our ability to conduct analyses necessary for planning and implementing sector-based work. This will include identifying common data elements and definitions that are needed for sector-based analyses, developing key search capabilities (e.g., by SIC or NAICS code), and developing analytical tools to support sector work. OR will evaluate coordinated multi-media rulemakings (e.g., pulp and paper, pharmaceuticals, and hazardous waste combustion) to identify lessons learned to guide future initiatives. An Agency-wide survey will be conducted of current sector-based analytical tools, such as the Clean Technology Substitute Assessments used by the DfE Program, to provide a summary of existing instruments that may be useful in cross-media sector activities.

Action B (4): Conduct evaluations of sector-based activities for continuous improvement.

OR will coordinate evaluations of the actions presented in this plan to determine their effectiveness and identify lessons learned that could assist in improving sector-based efforts. OR will also conduct a second third-party evaluation of CSI to glean additional lessons that can assist us in crafting future projects and improving current activities. Evaluations of other reinvention activities (e.g., Project XL) will be done to explore the application of their results to sector-based work.

Action B (5): Create internal sector-based incentives for EPA staff

EPA will establish award mechanisms to recognize individual and/or office contributions to the use and improvement of sector-based approaches. Other incentives will also be explored.

Action C. Craft Sector-based Solutions with External Stakeholders

Action C (1): Create a Federal Advisory Committee Act (FACA) sponsored committee dedicated to providing advice and consultation to the Agency on sector-based issues.

EPA will set up a new FACA committee, under the current National Advisory Council for Environmental Policy and Technology (NACEPT), as a successor to the current CSI Council. The new committee will focus on SBEP issues and will operate differently than the current CSI Council by providing more strategic recommendations for addressing problems and implementing solutions. The membership will be open to interested members of the existing CSI Council but also to individuals with specific sector experience. It will have the ability to establish and disband workgroups quickly to address specific issues. Additional information on this new committee is contained in
Appendix D.

Action C (2): Convene a futures roundtable

EPA will host a roundtable to examine the nature of longer term, high priority environmental problems (e.g., 3-5 years in the future) that might be responsive to sector-based approaches. The EPA Science Advisory Board (SAB) will be asked to provide expertise and advice to this roundtable. The SAB will also be tasked to review the role of science in sector-based approaches and suggest ways in which the quality of science in these approaches can be optimized. The SAB will discuss the outcomes of this review efforts with the NACEPT SBEP Committee to coordinate recommendations to the Agency.

Action C (3): Provide single points of contact for industry sectors.

EPA will evaluate the effectiveness of the national and regional liaisons established for the CSI Iron and Steel Sector in 1997. If the evaluation is favorable, the sector-based network will identify additional priority sectors that could benefit from such liaisons, such as in the Metal Finishing sector.

Action C (4): Implement a stakeholder involvement action plan

EPA will develop sector approaches with meaningful stakeholder involvement. EPA will implement recommendations of the CSI Council's Stakeholder Action Plan in its design of new sector-based projects. The Stakeholder Plan calls for early planning of stakeholder involvement in environmental actions then linking this involvement to decision-making. The Plan also recommends the adoption of a common vocabulary to describe stakeholder participation.

DEFINITIONS OF SECTORS

It is important to have a clear definition of sectors. The traditional definition of sectors, based on Standard Industrial Classification (SIC) codes, is being replaced by a system that uses a broader concept of sectors — the North American Industry Classification System (NAICS). This system is based on production and it groups together establishments that use similar processes and inputs to produce a good or service.[1] In the past, the SIC system has been criticized because it focuses too heavily on manufacturing and it gives little recognition to the growing, dynamic service sector that now represents 75 percent of the Gross Domestic Product.[2]

This Action Plan will use this broad definition of a sector as a discrete production system in the U.S. economy. This means, for example, that the Agency considers the automobile service and repair business as a sector (which the Office of Enforcement and Compliance Assurance has done) as well as the automobile manufacturing sector (which CSI used). This expanded definition of sectors has generally been recognized by the Agency's Partnership Programs. More than half of the 31 Partnership Programs focus on specific sectors, and nearly half of the Regional Programs similarly focus on sectors. In many cases, these sectors include service delivery businesses such as the printing, dry cleaning, and energy industries. Industries within a sector may vary and separation into sub-sectors may sometimes provide a better opportunity to isolate problems and issues.

There may be instances where it is advantageous to also consider governmental agencies, public or governmental facilities, or academia (colleges and universities) as sectors. These groups often share regulatory issues and environmental impacts, much like the private sector.

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[1] The SIC system has been used to classify industry sectors for over 50 years, however, this classification system has not kept pace with technical, economic, and social changes in the workplace. To address the problems associated with the SIC system, the NAICS system was created. The NAICS is the current standard base for classification of economic activities of a business establishment, adopted by Canada, Mexico, and the United States on January 1, 1997, to replace SIC. Classifying an industry by production in NAICS means that inputs include types of labor and skills, capital equipment, and intermediate materials. The United States will have approximately the same number of manufacturing industries in the NAICS as it did in the SIC. In addition to changes in the manufacturing industries, new sectors have been created that did not exist within the SIC system such as the information sector which includes telecommunications and data processing. (Excerpts from the 1998 *U.S. Industrial & Trade Outlook '98,* U.S. Department of Commerce, International Trade Administration, DRI/McGraw-Hill and Standard & Poor's, New York: McGraw-Hill.)

[2] Bruce Guile and Jared Cohen, "Sorting Out a Sector-Based Economy," in *Thinking Ecologically: The Next Generation of Environmental Policy,* New Haven: Yale University Press (1997), point out that manufacturing, mining, and agriculture — three economic sectors normally characterized as causing environmental damage — account for less than 25 percent of today's U.S. Gross Domestic Product. Service businesses account for more than 75 percent of the country's economy and 80 percent of its employment.

LESSONS LEARNED

The Office of Reinvention has looked at EPA sector-based efforts to glean lessons that can improve sector-based work in the future. These lessons have provided a foundation for the Action Plan. First and foremost, we have learned that sector-based approaches *can be* and *have been* very useful tools for EPA – all of EPA's offices have used sector-based approaches to help them in accomplishing their goals and mandates. We have also learned that sector-based approaches can be of even more benefit in the future. Although the Common Sense Initiative (CSI) has been the most visible sector-based program in recent years, there are many other examples of successful sector-based activities within EPA. Highlights of lessons learned from these programs are presented in this appendix.

Sector-Based Environmental Protection (SBEP) Approaches or Models

SBEP can take many different forms, as demonstrated by EPA's past and ongoing sector-based work. All of these approaches focus on a sector, but elements that differ include:

— <u>Regulatory or non-regulatory basis</u>. Sector-based efforts are undertaken to support regulatory activities and non-regulatory activities, including EPA's expanding list of voluntary programs.

— <u>Extent of multi-media or cross-Agency involvement</u>. There is a continuum of sector-based work that ranges from single-issue or single-media activities to those that are multi-media and cross-Agency.

— <u>Extent of stakeholder involvement</u>. There is a continuum of sector-based activities that ranges from narrow involvement of a small group of industry representatives through broader involvement of multiple stakeholders (environmental groups, environmental justice groups, labor, other regulators such as state and local agencies) in a larger group process.

— <u>Nature of stakeholder involvement</u>. The nature or type of stakeholder involvement can also be viewed as a continuum, ranging from exchange of information to development of recommendations to development of agreements. The difference among these types of involvement revolves around the objective of the project – is it intended simply as a forum for the exchange of information among stakeholders or is it intended to develop agreements among the stakeholders? Further, is it intended to obtain the various perspectives of the stakeholders or to develop consensus among them?

It is important to recognize in these different approaches to sector-based work that one size does not fit all. The key is to determine whether a sector-based approach is appropriate for a particular task and then to select the sector-based approach that is most useful in achieving the goals and objectives of the task. Lessons learned from EPA's past sector-based efforts indicate that involvement of multiple stakeholders is important in most sector-based activities and a multi-media approach is useful in many activities. It is not necessary, however, to follow the CSI model of a consensus-based process

operated under FACA. More streamlined processes are often more appropriate. In addition, sector-based activities within EPA are not limited to "industry" sectors; agriculture and other economic or social segments are included.

A few examples illustrate the range of approaches that are included under SBEP:

—   The Office of Air Quality Planning and Standards uses a sector-based approach to develop its MACT (Maximum Achievable Control Technology) Standards. In its MACT Partnerships program, OAQPS forms partnerships with industry, trade associations, State agencies, environmental groups, and the public to provide information and expertise for development of the standards.

—   The Office of Water is involving stakeholders in a sector-based approach to develop effluent guidelines. By working closely with industry and trade associations, State and local governments, citizen groups, and environmental organizations, EPA intends to reduce the time required to gather information needed and to develop the guidelines.

—   In the Pulp and Paper multi-media rulemaking, the Air and Water offices coordinated rulemakings for this sector. This project has already provided useful lessons and continues to be evaluated.

—   The Design for the Environment program in OPPT works with industry sectors and related stakeholders on issues such as innovative technologies, safer chemical uses, life-cycle assessment, and other "technical" topics.

—   The Sustainable Industry Program in OPPE selects sectors to work on issues of importance to the sector and to the Agency. These efforts have included broad voluntary industry-wide goal-setting efforts as well as more narrowly focused activities. This program incorporates a thorough analysis process before initiating work with a particular sector.

These examples are far from a complete description of sector-based work – other examples include OECA's Small Business Compliance Assistance Centers and Sector Facility Indexing Project, the Idaho "One Plan" Project, and others. As is clear from these descriptions, sector-based activities can be designed in many different ways to meet the needs and goals of specific projects or tasks. Different approaches offer different benefits and encounter different barriers; these are outlined in the sections that follow. The purpose of this Action Plan is to enhance EPA's capability to use sector-based approaches when they are appropriate and to begin to remove some of the barriers to sector-based work that have hampered efforts in the past.

Value and Benefits of SBEP

There are benefits from the focus on sectors, whatever sector-based approach is used, as well as benefits that come from the incorporation of multi-media elements and multiple stakeholders in some

sector-based activities.

The *value of sector-based approach*es, apart from the benefits of incorporating multi-media and multi-stakeholder elements, has been demonstrated in EPA's past and ongoing sector-based work. These benefits include the following:

- S   <u>Better information</u>. Sector-based activities offer opportunities for information exchanges that provide (1) information to the sector on current and future EPA actions, (2) higher quality, more up-to-date, and more complete information to EPA on the sector to provide a basis for action, and (3) more and better public access to this information.
- S   <u>Better understanding</u>. Interaction with sector representatives provides a better understanding among regulators of the different ways in which regulations affect various sectors and insights into ways that regulations could be tailored to be more effective and, in some cases, less burdensome for a sector. The sector-approach enables EPA to view the world from the perspective of the sector, which enhances understanding and communication.
- S   <u>More comprehensive perspective</u>. Focusing on a sector facilitates a more comprehensive examination of the regulations and other initiatives that affect that sector, even if the proposed activity is not multi-media, to determine how these efforts will facilitate or hamper a proposed activity such as a new rule, voluntary program, etc. This enables EPA and other stakeholders to develop a strategic view of how the proposed activity fits into the regulatory scheme in a way that contributes positively to environmental protection.
- S   <u>Lasting partnerships</u>. Sector-based activities provide opportunities for the development of partnerships to test innovative concepts and new technologies. A key element of these activities is the building of trust and lasting relationships.
- S   <u>Early warning system</u>. Discussions with the sector stakeholders allow early identification of barriers and incentives that might affect implementation of a regulation or other program, as well as approaches to overcome barriers and enhance implementation.
- S   <u>Going beyond compliance</u>. In working with a sector, activities can promote strategic environmental management within the sector, so that pollution prevention, product stewardship, and going beyond compliance become the norms.
- S   <u>Addressing environmental problems that lack regulatory solutions</u>. Sector-based approaches can address environmental problems that EPA's regulatory approaches cannot, by themselves, solve but are of concern to the public.

In summary, sector-based work can improve the quality of EPA's actions because of improved information and buy-in from key participants. This approach can also allow EPA to work with sector partners on issues that cannot be addressed by current regulatory approaches, leading to improved environmental protection in areas that are of crucial importance.

There are additional benefits of incorporating a multi-media approach into sector-based activities. *Multi-media sector-based activities* can take a comprehensive look at environmental problems and regulations instead of the traditional piecemeal approach and therefore:

S <u>Prevent/control rather than transfer pollution</u>. By considering other media, it is possible to develop solutions that more effectively and efficiently prevent or control pollution, and prevent the transfer of pollution from one medium to another;

S <u>Avoid duplication and inconsistency</u>. Duplication and inconsistency in regulations and programs hamper rather than facilitate environmental protection. Multi-media efforts, particularly sector-based multi-media efforts, provide a powerful tool for identifying and avoiding duplication and inconsistency; and

S <u>Are more cost-effective</u>. By avoiding duplication and inconsistency, programs will be more cost-effective and will deliver more benefit for the dollars invested.

Multi-media activities also support the promotion of product stewardship and resolution of environmental problems that are not amenable to regulatory approaches.

Multi-stakeholder sector-based activities can provide a forum for discussing opposing stakeholder positions, enabling all parties to express their opinions, and developing win-win solutions. They can:

S <u>Enhance public participation</u> and serve an educational function for the participants;
S <u>Increase public access</u> to information;
S <u>Enrich the quantity and quality of information</u> available and thus improve decisions, program design, and program implementation;
S <u>Ensure greater accountability</u> to interested groups and individuals such as workers and communities; and
S <u>Increase the "ownership"</u> of various groups in decisions so that these decisions are more likely to be honored and enable EPA to get stakeholder feedback on proposed actions earlier in the process (i.e., before public notice and comment) so that there are fewer rewrites of proposed rules and policies (for example, OAQPS now develops "presumptive MACTs" and then takes this material to the states, industry, and NGOs for comment before the formal public comment period).

Barriers to SBEP

There are significant barriers to implementing sector-based activities, with or without multi-media or multi-stakeholder components. This Action Plan contains steps to address many of these barriers.

Barriers to *sector-based activities* include:

S In some sectors, industry does not "need" a sector-based forum to deal with EPA because it has other means to access decision makers. Sectors with particularly strong trade associations or individual companies might be in this position. In these cases, industry might not perceive a benefit to participating in such a forum.
S In sectors dominated by small businesses, the companies might have limited capacity to

participate in the process. Some sector-based approaches are time-consuming and small
businesses often do not have staff that can be dedicated to the process, particularly staff who
have decision-making authority.

S   It is more difficult to find commonalities and reach agreements within more heterogeneous
    sectors. When these commonalities cannot be found, the sector does not coalesce to present a
    unified message to EPA. In these cases, if a sector-based approach is used, it should be an
    approach that allows differences of opinion and focuses on information exchange rather than
    reaching agreements, or that separates the sector into subgroups with more commonality.

S   Environmental and economic information is inadequate on many sectors. As a result, it is
    difficult for EPA to determine whether a sector is a good candidate for a sector-based activity.
    It might be difficult simply to characterize the sector (e.g., how many entities comprise the
    sector? Are they dispersed or clustered geographically? How similar are they in size, etc.?)

S   Economics, competitive relationships, and other factors may hinder innovative thinking and
    collaboration among the companies involved. Companies will not disclose information that is
    considered proprietary and discussion topics must be selected that do not compromise this
    confidentiality.

S   There are few sector-specific contacts or experts in the EPA program offices, so it can be
    difficult to obtain sector-specific information or to identify sector-specific regulations.

S   Sector-based work is not reflected in performance measures for EPA headquarters and
    Regional Offices – in particular, the Regional Offices are held accountable for outputs (or
    "beans") and sector-based work is not reflected. This is also a barrier to multi-media and
    multi-stakeholder work within EPA.

S   EPA does not have a consistent way of defining and identifying sectors – some use SIC codes
    and others use different definitions. As a result, it is difficult to identify sector-based activities in
    EPA databases and other records.

S   Agency actions (including rulemakings) generally do not have a sector identifier or "tag" on
    them to indicate which sectors they affect. This makes it difficult to identify relevant activities
    which could be coordinated or existing activities or rules that might be relevant to the sector.

Barriers to *multi-media sector-based activities* are similar to the barriers that impede other multi-
media activities within EPA. They include:

S   EPA's organization and budget are based on statutory, media-based programs; as a result, it is
    difficult to implement cross-Agency activities and the Agency's incentive structure has not
    rewarded these efforts. The current EPA Strategic Plan also emphasizes separate, media-
    based goals and performance measures.

S   Many other stakeholder groups are also organized in this fashion so their personnel have
    expertise in particular areas of regulation, pollutants, health or environmental effects, etc. rather
    than sectors.

S   Court ordered deadlines and other commitments may make it difficult to incorporate adequate
    time for multi-media coordination.

S   Timetables for regulations and other activities are often different and it is difficult to coordinate

rulemakings, for example, if they are on different schedules (e.g., five-year schedules vs. two-year statutory deadline).

Barriers to *multi-stakeholder sector-based activities* include:

S   A lack of funds and personnel within some <u>national</u> stakeholder groups to support activities devoted to <u>specific</u> sector issues.

S   A lack of funds, time, and expertise within some <u>local</u> stakeholder groups to support activities relevant to <u>national</u> sector issues.

S   Long histories of antagonism among stakeholder groups in some sectors.

S   Difficulty in identifying representatives who can speak for an entire group, such as environmental groups, environmental justice groups, state and local agencies, and some industries.

S   Lack of experience and expertise among many EPA and industry staff in organizing and managing multi-stakeholder activities.

In addition, some sector-based efforts do not have a regulatory basis. Barriers to *non-regulatory, voluntary sector-based efforts*, whether multi-media or single-media, include:

S   Lack of statutory authority – as a result, they are often viewed as a lower priority by EPA staff who face court-ordered deadlines and legislative requirements.

S   In some cases, they might also present potential liabilities to companies.

Finally, an important barrier to sector-based approaches is that many within EPA do not recognize their value and the contribution they can make to achievement of the Agency's mission.

Selecting Sectors and Stakeholders

Certain characteristics of a sector enhance the likelihood of a successful SBEP approach within EPA:

S   Relative homogeneity in terms of the size of the entities that comprise the sector, the issues they face, and their interests, or the ability to define sub-sectors with these characteristics makes it more likely that common ground can be found.

S   When an industry lacks powerful influence through a trade association or industry leaders, and/or lacks access to decision makers within EPA, the value of the forum is increased.

S   Ability to agree on important issues to be addressed enables the process to proceed more rapidly.

S   Ability to identify representatives who can speak for their own organizations and others in the sector and exercise leadership within the sector enhances the communication and the likelihood that the group will be able to reach and follow through on agreements.

S   Commitment to the process and willingness to participate and be part of a solution is crucial to the effectiveness of the process.

Important characteristics of other stakeholders that enhance the likelihood of success include:

- ∫ Ability to identify participants who can speak for their organizations and others in the stakeholder group
- ∫ Ability to commit time required for the process
- ∫ Commitment to the process and willingness to participate and be part of a solution
- ∫ Understanding of technical and other issues under consideration.

Criteria used by various current sector-based programs to select sectors for participation vary, but there are many criteria that are common to several programs. *Common elements among these criteria were used to develop the selection criteria suggested in Appendix C of this document.*

Following are some examples of criteria used in existing programs.

- ∫ importance of environmental problem or impact caused by or involving the sector, (CSI, Sustainable Industry Program, Sector Facility Indexing Program, OECA National Priority Sectors, New England Environmental Assistance Teams)
- ∫ opportunities for environmental improvement, risk reduction, compliance improvement (Sustainable Industry Program, Small Business Compliance Assistance Centers, Design for the Environment)
- ∫ high non-compliance rates (OECA National Priority Sectors, New England Regional Metal Finishing Teams)
- ∫ high degree of regulation, new regulations, burdensome regulations (New England Environmental Assistance Teams)
- ∫ importance of the sector to the national economy (CSI) or to the region (New England Regional Metal Finishing Teams)
- ∫ interest of the sector in participation (CSI, Design for the Environment, New England Environmental Assistance Teams)
- ∫ availability of information on the sector (Sector Facility Indexing Program)
- ∫ industry characteristics, such as identifiable sector (Sustainable Industry Program), active trade association (Sustainable Industry Program), size of the sector/number of facilities (Sector Facility Indexing Program, Small Business Compliance Assistance Centers), use of similar processes and products within the sector (Sector Facility Indexing Program), specific SIC codes or types of business (Sector Facility Indexing Program, Design for the Environment), size of businesses within the sector (Small Business Compliance Assistance Centers, Design for the Environment, New England Environmental Assistance Team), geographic distribution (Small Business Compliance Assistance Centers, OECA National Priority Sectors)
- ∫ value added of a sector approach (Sustainable Industry Program)
- ∫ specific statutory mandates (MACT standards, effluent guidelines)

In addition, the following criteria were used to determining whether a multi-media approach would be

feasible and appropriate in the Pulp and Paper rulemaking:

- Ϩ   a clear-cut linkage existed in the sector between water and air pollution
- Ϩ   the schedules for the two rules could be meshed
- Ϩ   the potential for pollution prevention and environmental improvement existed
- Ϩ   there was an overlap in the sources of pollution in air and water
- Ϩ   there was potential to offer flexibility to industry in the sector.

Processes and Procedures

EPA's experience with sector-based activities has demonstrated that the goals and processes used in the sector-based approach should be clearly defined, with timelines if possible. Further, the CSI experiment has illustrated that the multi-stakeholder, consensus-based process can produce useful results, such as long-term "buy-in" by participants on agreed upon issues, future partnership opportunities, greater citizen satisfaction, and improved communication options. Consensus decision making empowers stakeholders to express *interests* and participate in group decision making by voicing and negotiating factors involved with those interests. By contrast, the alternative method of simply voting on issues emphasizes expressing *positions* "for" or "against" an issue, rather than addressing the interests and needs that underlie those positions. In consensus decision making, parties have an incentive to devise creative solutions to problems which is often the best way to address stakeholders' diverse interests.

Some types of issues might be more amenable to sector-based approaches than others. For example, EPA staff who have participated in a variety of sector-based efforts suggested the following types of issues or efforts as most appropriate for sector-based work (note that there was not consensus on this list):

- Ϩ   some found that technical issues were more amenable to sector-based work and provided a defined focus for the effort. The Design for the Environment program found that it was most successful in focusing on specific technical issues in its sector-based work.
- Ϩ   some found that work on a specific regulation was particularly appropriate for sector-based approaches because there was a defined goal and timetable as well as relevance for participants
- Ϩ   all found that "real world" problems provided a better foundation for sector-based efforts
- Ϩ   most only addressed problems that they believed could be solved through a sector-based approach, which required up-front analysis of the issue and the likelihood that a feasible solution could be found (some, such as Design for Environment, thought that this excluded changes in regulatory requirements) – DfE and the Sustainable Industry Program emphasize the importance of this initial analysis.

SELECTING SECTOR-BASED APPROACHES

This Action Plan challenges the Agency to adopt a strategic approach to its business that is based on selecting the most appropriate, most effective tools for every task. There has been much written about EPA's "toolbox" but little guidance on how or when to select the best tools for each job. Approaches such as pollution prevention, place-based or community-based environmental protection, sector-based environmental protection, the national programs of compliance assistance and enforcement, as well as the national regulatory programs and the more traditional set of tools all can be tailored to specific problems to provide the most protection to human health and the environment as possible.

In her February 23, 1998, memorandum, the Administrator outlined several steps that would improve the Agency's capability to use sector-based approaches. One of these steps was the development of new analytical capabilities throughout the Agency. This Appendix is intended to enhance EPA's analytical capabilities by suggesting approaches for (1) determining whether a sector-based approach is appropriate for a specific task and (2) selecting the most appropriate sector-based model for the task. Actions presented in Action Area A of this Plan demonstrate the application of these processes.

When is a Sector-Based Approach Appropriate?

In some cases, a sector-based approach is built into an activity – some regulations are sector-specific and some initiatives, such as the Sustainable Industry Program or Small Business Compliance Assistance Centers, select sectors to work with. There are other efforts, however, in which a sector-based approach could contribute significantly but those leading the effort might not recognize this potential contribution. This Action Plan establishes processes to enable EPA staff to identify these instances in which sector-based activity makes sense.

This Appendix outlines three different types of tasks that EPA performs and the related analyses that can lead an EPA manager or staff member to consider and engage in a sector-based activity. These three types of tasks are:

1. Developing a response to an identified ***environmental issue or problem***.
2. Developing or modifying ***regulations, standards, and policies***.
3. Planning and implementing special initiatives involving ***priority sectors.***

Broad criteria for determining whether a sector-based activity is appropriate and for selecting specific sectors for such activities are suggested below; these criteria were derived from the more exhaustive list of criteria that are used by EPA's various sector-based efforts (see Appendix B for this more detailed list).

- S *Importance of the environmental impact or problem to be addressed.*
- S *Opportunities for regulatory improvement (including development of new regulations, reduction of burden and improved environmental results in existing regulations).*

S   *Value added of a sector approach and opportunities for improvement (including opportunities for compliance improvement and risk reduction).*

S   *Existence of an identifiable "sector"and sector representatives.*

S   *Interest of sector representatives and other related stakeholders in participation (including willingness to work toward "win-win" solutions).*

More specific criteria to be used in each of the three types of tasks are presented in the sections that follow.

Developing a response to an environmental issue or problem. When an environmental issue or problem is identified, EPA uses various processes for developing its response. It has been suggested that EPA often looks too narrowly at environmental problems and issues, thus missing opportunities for more effective actions. This Action Plan suggests that an expanded approach to analyzing these issues and problems might result in more cost-effective and environmentally preferable solutions. In addition to examining the environmental problem or issue as it initially presents itself, such as a specific pollutant from a specific process, this expanded analysis suggests that EPA should:

S   explore upstream sources or causes of the problem – beyond the immediate source – to determine whether changes in upstream industrial processes or feedstocks, consumer or public behavior, or other elements could reduce or eliminate the apparent environmental problem or issue.

S   explore downstream effects of the problem or issue to determine whether there is a cost-effective approach for handling it at a later point in its life cycle.

S   explore the relationship of the problem or issue to other problems or issues, including those that affect other media.

S   identify potential combinations of interventions in addition to single interventions that could be most effective in addressing the problem, and consider regulatory and non-regulatory approaches as well as multi-media approaches that might work in concert.

S   consider the cost-effectiveness of various identified interventions. An intervention (or combination of interventions) that is not cost-effective at one point might be cost-effective when the total costs of the problem, from sources or causes to downstream effects, are considered.

The intervention(s) that are determined to be the most beneficial for the environment as well as most cost-effective might not be the ones that would have been chosen if the analysis had focused more narrowly on the issue or problem as it presented itself initially.

As EPA analyzes high priority environmental issues or problems to determine what action or combination of actions would be most appropriate, sector-based activities should be considered. This analysis should occur before or during the strategic planning process with the result that, when appropriate, sector-based subobjectives will be incorporated into Annual Performance Plans.

In assessing whether a sector-based approach would be valuable, the first question is whether there is

an identifiable sector that is a major contributor to the issue or problem. Once it is established that the issue or problem, or a selected intervention, might be sector related, it is important to explore the feasibility of applying a sector-based approach and likelihood of success. The following criteria can assist in this analysis:

- S Does the sector have identifiable and active companies, organizations, or trade/professional association(s)?
- S Is the sector relatively homogeneous with respect to the problem or issue? Can common interests be identified, as well as common barriers and drivers?
- S Do sector representatives show an interest in participating and making the process work?
- S Are there other agency activities involving the sector that would complement the effort (or, at a minimum, an absence of agency activities with conflicting objectives)?
- S Can objectives and potential outcomes of the process be clearly stated in terms of how they will affect the environmental problem or issue?
- S Can leadership be identified in all various constituencies involved?

If all or most of these questions can be answered affirmatively, the likelihood of success is higher. It is also helpful to understand the history of the sector, including compliance history, growth, and other economic trends; its positions or actions related to the issue or problem; and other sector actions, such as pending litigation, that might present a barrier to a collaborative sector-based approach. Other characteristics have been suggested that appear to enhance the likelihood of success in working with a sector; these characteristics are outlined in Appendix A, *Lessons Learned.* None of these characteristics are hard and fast rules, however; for example, although many sector-based initiatives have found it easier to work with sectors that are composed of smaller businesses, EPA should not avoid a sector-based activity with a sector that is dominated by larger companies if it appears that this activity will be beneficial in addressing a problem or issue.

Actions A(4) and A(7) illustrate this process.

Developing or modifying regulations, standards, and policies. If a new regulation, standard, or policy relates to a specific sector, EPA often uses a sector-based approach to develop the regulation or standard. This approach can range from a partnership with the sector for information exchange to a more formal multi-stakeholder process that might involve additional media. Most of these sector-based activities have involved limited stakeholder involvement and have been limited to a single media-based rule or policy.

In some cases, the implementation of sector-based activity to support development or modification of a regulation, standard, or policy could be enhanced through a more thorough analysis of the relevant sector(s). This analysis should include:

- S identification of other EPA activities, including other regulations, standards, policies, special initiatives, enforcement priorities, etc., that could facilitate or present barriers to the regulation,

standard, or policy.

S assessment of whether research, training and technical assistance, voluntary action, or enforcement could address the environmental issue more effectively or complement the regulation, standard, or policy (recognizing that EPA often faces statutory mandates to develop regulations and standards and has no ability to substitute another action, even if the action appears to be more effective).

S identification of any economic, technical, or other analyses that have been conducted that could inform this effort.

This type of analysis could lead to coordinated rulemaking but it could also result in a more limited effort aimed simply at avoiding inconsistency or duplication for the sector.

Actions A(1) and A(2) illustrate this process.

Identifying priority sectors. EPA will continue to identify priority sectors for addressing Agency priorities, building particularly on initiatives such as the Sustainable Industry Program, Design for the Environment, Small Business Compliance Assistance Centers, and the Common Sense Initiative. EPA will identify candidate sectors based on criteria such as the following:

S Clear links between the sector and EPA priorities, goals, and objectives.

S Importance of environmental impacts related to the sector, particularly impacts in multiple media.

S Opportunities for environmental improvement.

S Sector characteristics, such as homogeneity of interests, identifiable leaders (companies, individuals, trade associations) and other criteria that defined likelihood of success earlier in this document.

S Commitment to the process and willingness to participate and be part of a solution.

Following the identification of candidate sectors, EPA will undertake a more thorough analysis of the sector to learn more about opportunities, drivers, barriers, and economic capacity that might be addressed by a sector-based activity. This analysis will also identify more specifically the linkages between the sector-based activity and EPA priorities and GPRA goals.

Actions A(3), A(5), and A(6) illustrate this process.

Which Sector-Based "Model" is Most Appropriate?

There are many "models" of sector-based work at EPA and each is appropriate in different situations. These models are defined by (1) the extent that the effort is multi-media vs. single-media, and (2) the extent to which it is multi-stakeholder. Other considerations in designing the approach include the type of stakeholder involvement that is appropriate, including information exchange, provision of advice, and negotiation of agreements; the process for setting goals and undertaking actions; and other

administrative and procedural factors.

This Action Plan encourages the use of multi-media and multi-stakeholder processes in sector-based activities in most cases to obtain the most benefit from the approach. Not all sector-based activities need to be multi-media, although other media considerations often arise when a sector is discussing its issues. Further, "multi-media" and "single-media" can be viewed as the two ends of a continuum, with many gradations in between. Important criteria to consider in determining the extent to which a sector-based activity should also be multi-media include:

S   Will actions taken on this issue affect more than one program area/media?
S   Are there other regulations that affect this sector coming up on the regulatory agenda?
S   Will actions taken on this issue affect regulations in other program areas/media? (On the other hand, are there drivers that will hamper cross-Agency action, such as a statutory or court-ordered deadline?)

Another consideration is the extent to which the sector-based activity should involve stakeholders other than the sector representatives. Criteria to consider include:

S   Are there stakeholders other than those defined by the sector (e.g., industry) with an interest in the issue? (Consider people or organizations currently affected by the problem, people or organizations who will be affected by potential actions, people or organizations who will be involved in implementing the actions, people or organizations who will be involved in ensuring implementation of the actions, people who have information or expertise that will be needed to design or implement the actions).
S   Have relationships with these stakeholders been established so that a public involvement process can succeed?
S   Are these stakeholders willing to commit to a sector-based process and to its success?

EPA has experience with many different models of sector-based work. A few examples are presented below:
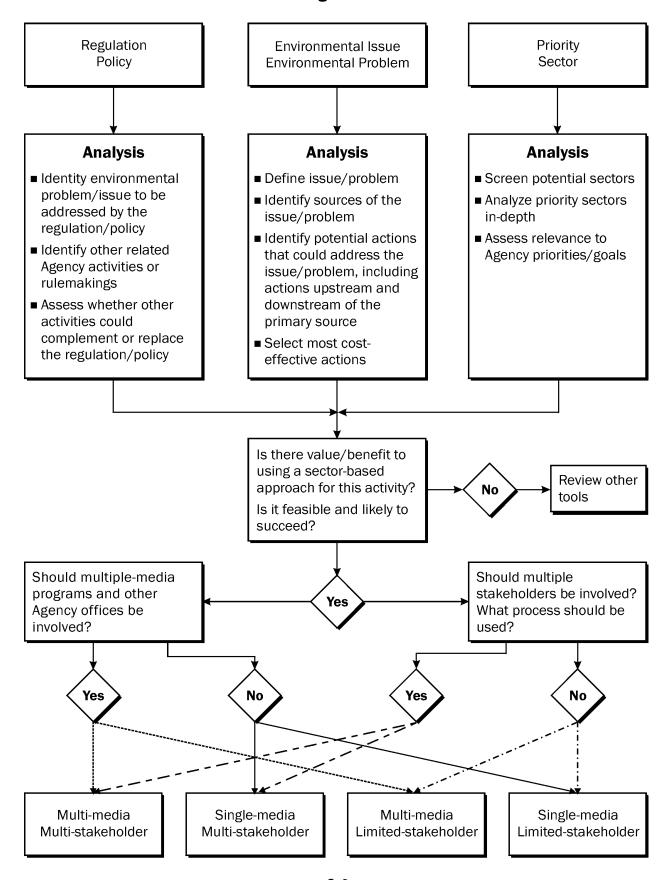
S   <u>Multi-media, multi-stakeholder approach</u>. Examples of this approach include CSI, most Sustainable Industry Program projects, the Pulp and Paper coordinated rulemaking.
S   <u>Multi-media, limited stakeholder approach</u>. Examples of this approach include several of the Small Business Compliance Assistance Centers such as the Agriculture Center, the Transportation Center, and ChemAlliance—the Compliance Assistance Center for the Chemical Industry.
S   <u>Single-media, multi-stakeholder approach</u>. Examples of this approach include MACT, Partnership Program and Effluent Guidelines development.
S   <u>Single-media, limited stakeholder approach</u>. Examples of this approach include the development of RCRA rules for hazardous waste under Category K.

Conclusion

This Appendix presents a new way for EPA to approach its work, one that encourages innovation and creativity based on sound and thorough analysis; Figure 1 depicts this process graphically. In some cases, this new approach will lead to sector-based activity and in some cases it will lead to other tools. When a sector-based activity is planned, careful consideration should be given to the design of that activity so that the relevant players are included from various EPA offices and other stakeholder groups.

Figure 1

Regulation Policy	Environmental Issue Environmental Problem	Priority Sector

Analysis

- Identity environmental problem/issue to be addressed by the regulation/policy
- Identify other related Agency activities or rulemakings
- Assess whether other activities could complement or replace the regulation/policy

Analysis

- Define issue/problem
- Identify sources of the issue/problem
- Identify potential actions that could address the issue/problem, including actions upstream and downstream of the primary source
- Select most cost-effective actions

Analysis

- Screen potential sectors
- Analyze priority sectors in-depth
- Assess relevance to Agency priorities/goals

Is there value/benefit to using a sector-based approach for this activity?

Is it feasible and likely to succeed?

No → Review other tools

Yes

Should multiple-media programs and other Agency offices be involved?

Should multiple stakeholders be involved? What process should be used?

Yes   **No**   **Yes**   **No**

Multi-media Multi-stakeholder	Single-media Multi-stakeholder	Multi-media Limited-stakeholder	Single-media Limited-stakeholder

DEFINING THE FUTURE ROLE OF THE CSI COUNCIL

There was wide agreement at the June 9, 1998, CSI Council meeting that a process model for early planning of stakeholder involvement should be utilized in any future sector-based environmental protection (SBEP) efforts. The process used to determine when to engage in sector-based activities must necessarily operate in tandem with "when and how" to engage stakeholders. As noted in the recommendation made by the CSI Council Workgroup on Stakeholder Involvement, the stakeholder process model should include a decision analysis stage, a public participation planning stage, and an implementation stage. While these stages are ideally suited for new stakeholder involvement activities, this process is also useful for a re-evaluation of existing activities, such as considering the future of the CSI Council and Sector Subcommittees. This discussion will focus primarily on the future direction of the Council since it was agreed by the CSI Council that each of the Subcommittees should "self-determine" their future activities.

The decision made by the CSI Council about its future role is that it would perform primarily an oversight function of EPA's sector-based activities, monitoring Agency efforts in using the sector approach and providing advice on whether the process is working. The role for EPA in this effort is the decision-maker and a reformulated CSI Council would continue as an advisory group to the Agency. Since the Agency seeks to obtain advice and recommendations from this group in the future and maintain a policy dialogue on SBEP, some form of Federal Advisory Committee Act (FACA) structure must be retained. The best opportunity to continue a FACA forum is to have the Council become a standing committee under the auspices of the existing EPA sponsored **National Advisory Council for Environmental Policy and Technology (NACEPT).**

NACEPT is a public advisory committee originally chartered on July 7, 1988. The NACEPT Council provides recommendations and advice to the Administrator of EPA and other EPA officials on ways to improve the development and implementation of domestic and international environmental management policies, programs, and technologies. The NACEPT Council serves as a steering committee and includes senior-level officials and experts representing federal, state, and local governmental agencies, tribal organizations, business/industry, international organizations, academia, environmental groups, nonprofit entities, and other non-governmental organizations. As principal constituents and stakeholders of EPA, these members provide advice and recommendations on policy issues and serve as a sounding board for new strategies that the Agency is developing. As the transition to NACEPT occurs, EPA pledges to retain the balance of stakeholder representation that CSI has enjoyed.

NACEPT Council and standing committee members are appointed by the EPA Deputy Administrator. Similar to how CSI has operated, standing committees and workgroups must work through the Council. Committee reports and recommendations are submitted to the Council for review and approval before being forwarded to the Administrator by the NACEPT Chair. It will be important to build on our

lessons learned from CSI and establish clearly how the NACEPT Council and Standing Committee on Sectors will work together. This will include establishing clear roles and responsibilities, and how they will deal with consensus. The Standing Committee on Sectors itself will also need to establish ground rules for its operations.

A standing committee of multi-stakeholders will be established with memberships for alternating one and two year terms. Some CSI Council members will be invited to participate to provide an historical perspective and assist in a smooth transition. Experts representing various organizations and professional disciplines will also be sought to assist the standing committee in their assessment of various Agency proposals. Membership within the standing committee will change depending upon the issues before it. For example, it is expected that new Agency sector activities will be undertaken that will be outside of the current five CSI sectors and new members will be needed who have experience with these relevant sectors. While some core CSI Council membership needs to be retained, dynamic and flexible membership will enable the group to react to issues and actions brought by the Agency. Multi-stakeholder representation will be established but with more emphasis on experience dealing with specific sectors than in the past. While the exact time period for the advisory process can not be estimated at this time, it will clearly be necessary during the two year transition period for the integration of the sector-based approach. It is expected that meetings will be devoted to various sector-related technical, scientific, process, and policy issues.

All levels of the Agency have interacted with NACEPT at various times, including the Administrator and Deputy Administrator, Assistant Administrators, and Program Office Directors and staff. One of the values that NACEPT offers in the transition from CSI is continued involvement of the political leadership of the Agency, while providing a new, direct path to the career senior and mid-level management. Both are important if the sector-based approach is to be successfully and fully utilized.

The NACEPT structure will offer the ability to form workgroups to oversee current and future projects of the CSI Sector Subcommittees. NACEPT's scope includes conducting meetings, analyzing problems, presenting findings, and making recommendations on a continuing basis to the Administrator, and is amenable to CSI types of activities. A NACEPT Standing Committee on Sector-Based Environmental Protection offers an established yet flexible avenue for stakeholder involvement to encourage the use of this important tool.

Table 1 - FY 99 SBEP Action Plan
EPA SECTOR BASED PROGRAMS
by National Program Office (Headquarters) and Region

Office of Air and Radiation			
Program Name	**Sector(s)**	**Description**	**Contact Information**
AgSTAR	Dairy, pork, and other livestock producers (main focus: swine and dairy industries)	Part of *Climate Change Action Plan* and EPA's *Partners for the Environment*. AgSTAR promotes cost-effective methods for reducing methane emissions through manure management. The program is designed to remove barriers that impede the widespread adoption of technologies that capture and utilize the energy value in agricultural methane. The goal of the program is to reduce U.S. methane emissions by 2.25 million metric tons of carbon equivalent by the year 2000. To achieve this goal, it will be necessary for 2000 farms to install manure methane recovery systems (approximately 20 percent of the swine industry and 15 percent of the dairy industry).	Kurt Roos, Office of Atmospheric Programs (202) 564-9041 Roos.Kurt@epamail.epa.gov www.epa.gov/agstar
Voluntary Aluminum Industrial Partnership (VAIP)	Primary aluminum producers	Part of *Climate Change Action Plan* and EPA's *Partners for the Environment*. VAIP is an innovative environmental stewardship and pollution prevention program to encourage reduction of perfluorocarbon (PFC) gas emissions from primary aluminum production. The goal of the VAIP program is to reduce PFC emissions from U.S. primary aluminum production 45 percent by 2000–equivalent to roughly 2.2 million metric tons of carbon equivalent.	Eric Jay Dolin, PhD., Atmospheric Pollution Prevention Division (202) 564-9044 Dolin.Eric@epa.gov www.epa.gov/vaip
Coalbed Methane Outreach Program	Coal mining industry	Part of *Climate Change Action Plan* and EPA's *Partners for the Environment*. The program encourages coal mines to recover and use or sell coal mine methane as an energy source. The program raises awareness of opportunities for profitable investment. The goal of the program is to identify barriers and remove obstacles to profitable methane recovery coal mines through dissemination of technical and economic information.	Karl Schultz, Atmospheric Pollution Prevention Division (202) 564-9468 Schultz.Karl@epa.gov www.epa.gov/coalbed
Consolidated Federal Air Rule	Chemical manufacturers	Under a consolidated proposed air rule, chemical manufacturers could save 1,700 person-hours, or $80,000, a year in the future. The proposal, which represents the first consolidated rule ever under the Clean Air Act, would be voluntary. Plant managers could opt to comply with the consolidated rule or continue operating under the existing 16 rules. This rule will be used as a model for potentially consolidating other rules under the Clean Air	Rick Colyer, Office of Air Quality Planning and Standards (919) 541-5262 Colyer.Rick@epa.gov http://www.epa.gov/reinvent/notebook/cfar

Office of Air and Radiation

Program Name	Sector(s)	Description	Contact Information
Energy Star	Manufacturers of energy efficient equipment, building contractors, small businesses, home builders	Part of EPA's *Partners for the Environment*. The goal of Energy Star is to optimize energy efficiency and profits while preventing pollution. The program promotes the purchase and installation of energy efficient equipment and lighting technology in commercial, industrial, and residential buildings.	Scott Thigpen (202) 564-9002 Thigpen.Scott@epa.gov www.epa.gov/energystar
National Emission Standards for Hazardous Air Pollutants: MACT *(Maximum Achievable Control Technology)* **Rules**	Source categories include dry cleaning, aerospace industry, iron and steel industry	The MACT rules regulate hazardous air pollutants in various source categories as required by the 1990 amendments to the Clean Air Act. Source categories are subdivided in 2-year, 4-year, 7-year, and 10-year "bins."	Yvonne W. Johnson, Office of Air Quality Planning and Standards (OAQPS) (919) 541-2798 Johnson.YvonneW@epa.gov
Landfill Methane Outreach Program (LMOP)	Landfill gas industry, state regulatory agencies, electric utilities, power marketers, landfill owners and operators, communities	Part of *Climate Change Action Plan* and EPA's *Partners for the Environment*. The LMOP works with the landfill gas industry (LFG), landfill owners and operators, utilities, power marketers, states, and communities to facilitate environmentally and economically beneficial landfill gas utilization projects. The LMOP provides technical and marketing information and assistance to help potential projects overcome barriers to project development. Using the landfill gas as an energy resource reduces emissions of a potent greenhouse gas into the atmosphere, and utilizes a local, renewable source of energy. By linking communities with innovative ways to deal with their LFG, the LMOP helps communities improve their environment through better waste management and responsible community planning.	Shelley Cohen, Office of Atmospheric Programs (202) 564-9797 Cohen.Shelley@epa.gov www.epa.gov/lmop
Natural Gas Star	Natural gas transmission, distribution, production and processing industries	Part of *Climate Change Action Plan*. This voluntary program works closely with the natural gas industry to reduce emissions of methane. It encourages companies to adopt cost-effective best management practices (BMPs) that reduce leaks and losses of natural gas. It works as an effective technology transfer program for promoting innovative processes and technologies.	Paul Gunning, Office of Atmospheric Programs (202) 564-9736 Gunning.Pau@epa.gov www.epa.gov/outreach/gasstar

Office of Air and Radiation			
Program Name	**Sector(s)**	**Description**	**Contact Information**
Ruminant Livestock Efficiency Program (RLEP)	Beef and dairy producers	Part of *Climate Change Action Plan* and EPA's *Partners for the Environment*. RLEP is a collaborative effort between EPA and USDA that promotes cost-effective methods for reducing methane emissions from ruminant livestock. It helps producers voluntarily reduce emissions of methane and other greenhouse gases from ruminant livestock production through management strategies that improve production efficiency and result in lower emissions per unit of milk or meat produced. The goal is to reduce 2.2 million metric tons of carbon equivalent of methane emissions by the year 2000 by improving ruminant productivity. Specific actions for improving productivity include improved grazing management, strategic dietary supplementation, the use of production enhancing technologies, improved animal health, improved genetics and reproduction.	Mark Orlic, Office of Atmospheric Programs (202) 564-9043 Orlic.Mark@epa.gov www.epa.gov/rlep
SF6 Emissions Reduction Partnership for Electric Power Systems	Electric Utilities and other electricity providers who use SF6-filled equipment	This voluntary partnership encourages electric power systems to take steps to reduce the emissions of sulfur hexafluoride (SF6) from electrical equipment, e.g., circuit breakers. SF6 is an extremely potent greenhouse gas. Emissions reduction action partners can pursue measures such as improving the operation and maintenance of equipment, recycling SF6, and retiring older, leakier equipment. The program was launched at the end of 1998 and is currently recruiting partners.	Eric Jay Dolin, Ph.D., Atmospheric Pollution Prevention Division (202) 564-9044 Dolin.Eric@epa.gov
SF6 Emission Reduction Partnership for the Magnesium Industry	Magnesium producers and magnesium casting companies	One of EPA's newest voluntary industrial partnerships in 1999, this collaborative program aims to reduce SF6 emissions from magnesium industrial processes, where technically feasible and cost-effective. Together, partner companies and EPA will evaluate and implement cost-effective emission reduction technologies and strategies. Successful reduction efforts will both protect the global climate and conserve an expensive resource thus helping partners' businesses become more profitable.	Scott Bartos, Atmospheric Pollution Prevention Division (202) 564-9167 Bartos.Scott@epa.gov

Office of Air and Radiation

Program Name	Sector(s)	Description	Contact Information
PFC Emission Reduction Partnership for the Semiconductor Industry	Semiconductor manufacturers	Part of the *Climate Change Action Plan*. This partnership coordinates the efforts of the U.S. EPA and 24 U.S. semiconductor manufacturers to reduce emission of perfluorocompounds (PFCs). The partnership is currently developing, evaluating, and implementing reduction technologies following a pollution prevention hierarchy that includes: 1) process optimizations, 2)alternative chemistries, 3) recovery of the PFCs from the exhaust stream for beneficial reuse, and 4) destruction of the chemicals before release to the atmosphere. The U.S. partnership has led the global industry to seek reductions of these potent Green House Gases (GHG) through its participation in the World of Semiconductor Council.	Scott Bartos, Atmospheric Pollution Prevention Division (202) 564-9167 Bartos.Scott@epa.gov
Common Sense Initiative (CSI) Automotive Sector	Automotive Manufacturing	CSI promoted "cleaner, cheaper, and smarter" approaches to environmental protection through an industry based, multi-stakeholder, consensus process. Projects and activities were conducted under the auspices of an EPA-sponsored Federal Advisory Committee. (See CSI under Office of Reinvention)	Keith Mason, Office of Policy Analysis and Review (202) 260-1360 Mason.Keith@epa.gov www.epa.gov/commonsense

Office of Enforcement and Compliance Assurance

Program Name	Sector(s)	Description	Contact Information
Compliance Assistance Centers	Automotive service, metal finishing, printing, agriculture, printed wiring board, local government, transportation, small to medium chemical companies, paint and coating	Provides small businesses in specific industries with tools that assist them with regulatory compliance. This includes helping facilities identify the specific federal environmental regulations that apply to their specific line of business, taking appropriate steps to improve compliance with environmental regulations, and considering Pollution Prevention (P2) approaches. Supported by the EPA Office of Compliance, each "virtual"center focuses on a particular industry and is operated in partnership with industry, academic institutions, environmental groups, and other federal and state agencies.	Andy Teplitzky, Office of Compliance (202) 564-5082 Teplitzky.Andy@epa.gov http://es.epa.gov/oeca/mfcac.html

Office of Enforcement and Compliance Assurance			
Program Name	**Sector(s)**	**Description**	**Contact Information**
Sector Facility Indexing Project (SFIP)	Petroleum refining; iron and steel production; primary nonferrous metal refining and smelting; pulp manufacturing; and automobile assembly	A pilot project that assists the public in examining and comparing records of individual regulated facilities in nearby communities and assists businesses and corporations in tracking their own environmental performance. It is also a useful planning and analytical tool for government. SFIP currently contains records for 5 industry sectors that consist of approximately 640 facilities. SFIP presents inspection, compliance, and enforcement data that focuses on the Clean Air Act, Clean Water Act, and Resource Conservation and Recovery Act. SFIP also includes background data on the location and production capacity of each facility, as well as information on the population of the surrounding areas.	Robert Lischinsky, Office of Compliance (202) 564-2628 Lischinsky.Robert@epa.gov http://es.epa.gov/oeca/sfi
Self Audit and Inspection Guide	Metal Finishing Industry	The Office of Compliance, working with the National Defense Center for Environmental Excellence, has developed the CD-ROM based program, "A Self Audit and Inspection Guide for Facilities Conducting Cleaning, Preparation and Organic Coating of Metal Parts." The Guide is a unique compliance assistance tool which utilizes video and animation to provide regulatory and technical information to EPA/state inspectors, technical assistance providers, and paint and coating industry personnel. The CD ROM places the user at a virtual control panel from which they can navigate a tour through a paint and coating facility using video and animation. The Guide provides a video or animated presentation, and a narrated description of 17 metal parts cleaning, coating, and curing processes with Internet hot links to additional resources. The Guide also provides summaries of the applicable Federal environmental statutes and regulatory requirements, pollution prevention alternatives, and other information.	Anthony Raia, Office of Compliance (202) 564-6045 Raia.Anthony@epa.gov

Office of Enforcement and Compliance Assurance

Program Name	Sector(s)	Description	Contact Information
Industry Sector Notebook Project	30 major industry sectors	The Office of Compliance Sector Notebook project involves the compilation of sector specific notebooks that provide an overview of the sector as well as cross-cutting environmental issues into a single document. Thirty notebooks have been completed, and each contain: general background information, national distribution of facilities, process descriptions, waste releases, pollution prevention opportunities, applicable statutes and regulations, compliance and enforcement history, pollution prevention opportunities, and a contact directory. By drawing together these topics, the Notebooks are directing decision makers toward more holistic multimedia solutions to environmental problems. The Notebook series is proving especially useful to Federal and State regulatory officials, small business service providers, community groups, educators, international organizations, and foreign governments.	Seth Heminway, Office of Compliance (202) 564-7017 Heminway.Seth@epa.gov www.epa.gov/oeca/sector
Common Sense Initiative (CSI) Printing Sector	Printing	CSI promoted "cleaner, cheaper, and smarter" approaches to environmental protection through an industry based, multi-stakeholder, consensus process. Projects and activities were conducted under the auspices of an EPA-sponsored Federal Advisory Committee. (See CSI under Office of Reinvention)	Gina Bushong, Office of Compliance (202) 564-2242 Bushong.Gina@epa.gov www.epa.gov/commonsense

Office of Policy

Program Name	Sector(s)	Description	Contact Information
Sustainable Industry (SI) Project	Metal finishing; specialty-batch chemical manufacturing; food processing; metal casting; travel and tourism; and photo processing	Part of EPA's *Partners for the Environment*. The SI Project provides incentives and removes barriers to better environmental performance in selected industry sectors. The SI Project is based on the premise that each industry sector presents a different set of corporate traits, trends, and decision-making factors–drivers and barriers–that influence corporate environmental performance. By understanding those sector-specific factors, EPA can tailor its policies and programs to effectively promote strategic environmental protection to companies within their sector.	Bob Benson, Office of Policy Development (202) 260-8668 Benson.Robert@epa.gov www.epa.gov/sustainableindustry

Office of Policy			
Program Name	**Sector(s)**	**Description**	**Contact Information**
Common Sense Initiative Metal Finishing Sector-Strategic Goals Program (SGP)	Metal Finishing Industry	The Strategic Goals Program(SGP), designed and endorsed by the CSI multi-stakeholder group, establishes a set of voluntary National Performance Goals for metal finishers that represent "better than compliance" environmental performance. In keeping with an industry's commitment to continuous environmental improvement, these ambitious targets will improve resource utilization, reduce hazardous emissions, improve economic pay backs, and reduce unnecessary compliance costs. The SGP includes industry commitment to continuous environmental improvement. The SGP includes industry-wide goals for full compliance, enforcement of chronic non-compliers, and "Brownfields prevention." Using 1992 as a measurement baseline, participating facilities are working to achieve these goals by 2002.	Bob Benson, Office of Policy Development (202) 260-8668 Benson.Robert@epa.gov www.strategicgoals.org
Transportation Partners	Local government; transportation sector	Part of *Climate Change Action Plan* and EPA's *Partners for the Environment*. Develop innovative, nonregulatory approaches to reduce carbon dioxide emissions from the transportation sector. Reduce the growth of vehicle miles traveled (VMT) through the promotion and adoption of various measures that provide a greater variety of transportation choices for citizens and thereby reduce carbon dioxide emissions. The program assists community design, economic or market-based incentives, and advanced technologies that enhance mobility and create sustainable communities.	Allen Greenberg, Office of Policy Development (202) 260-0626 Greenberg.Allen@epa.gov www.epa.gov/tp

Office of Prevention, Pesticides and Toxic Substances			
Program Name	**Sector(s)**	**Description**	**Contact Information**
Design for Environment (DfE)	Printing (screen, lithography and flexography); electronics (printed wiring board and computer display); metal finishing; dry cleaning/garment care; industrial laundries; and auto-refinishing	Part of EPA's *Partners for the Environment.* The Design for the Environment (DfE) program was created to promote the incorporation of environmental considerations into the design and redesign of products, processes, and technical and management systems. By consciously designing for the environment, the program aims to encourage pollution prevention and efficient risk reduction in a wide variety of activities. Under the DfE program, EPA works through voluntary partnerships with industry, professional organizations, state and local governments, federal agencies, and the public, including environmental and community groups.	Marla Hendriksson, Office of Pollution Prevention and Toxics (202) 260-8301 Hendriksson.Marla@epa.gov www.epa.gov/dfe
Green Chemistry Challenge	Chemical manufacturers; manufacturers of products that use chemicals	Promotes the development of products and processes that reduce or eliminate toxic substances associated with the design, manufacture, and use of chemicals.	Tracy Williamson, Office of Pollution Prevention and Toxics (202) 260-3960 Williamson.Tracy@epa.gov www.epa.gov/greenchemistry
Common Sense Initiative(CSI) Computers and Electronics Sector	Computers and Electronics	CSI promoted "cleaner, cheaper, and smarter" approaches to environmental protection through an industry based, multi-stakeholder, consensus process. Projects and activities were conducted under the auspices of an EPA-sponsored Federal Advisory Committee. (See CSI under Office of Reinvention)	John Bowser, Office of Pollution Prevention and Toxics (202) 260-1771 Bowser.John@epa.gov http://www.epa.gov/commonsense

Office of Solid Waste and Emergency Response

Program Name	Sector(s)	Description	Contact Information
WasteWise	Over 50 sectors including local governments, hospitals, aerospace, communication, and printing and publishing	Part of *Climate Change Action Plan* and EPA's *Partners for the Environment*. EPA sponsored partnership program that seeks to conserve energy and natural resources and prevent pollution through reducing municipal solid waste, such as corrugated containers, office paper, yard trimmings, packaging, and wood pallets. Partners reduce municipal solid waste by waste prevention, collecting recyclables, and increasing the manufacture and purchase of recycled products. Participants, ranging from small local governments and nonprofit organizations to large multi-national corporations, sign on to the program for a 3-year period.	Jeff Tumarkin (703) 308-8686 Tumarkin.Jeff@epa.gov www.epa.gov/wastewise
Common Sense Initiative (CSI) Petroleum Refining Sector	Petroleum Refining	CSI promoted "cleaner, cheaper, and smarter" approaches to environmental protection through an industry based, multi-stakeholder, consensus process. Projects and activities were conducted under the auspices of an EPA-sponsored Federal Advisory Committee. (See CSI under Office of Reinvention)	Steve Souders, Office of Emergency and Remedial Response/ Superfund/ Oil/Programs (703)308-8431 Souders.Steve@epa.gov www.epa.gov/commonsense

Office of Water

Program Name	Sector(s)	Description	Contact Information
Water Alliances for Voluntary Efficiency (WAVE)	Lodging industry; office buildings; schools; and colleges and universities	Part of EPA's *Partners for the Environment*. WAVE seeks to reduce water consumption while increasing efficiency, profitability, and competitiveness. WAVE strives to benefit its members by reducing water and energy consumption through the installation of water-efficient equipment; linking water-use efficiency to reduced operating costs; enhancing their public image; and educating their staff, employees and customers about the benefits of water efficiency.	John Flowers, Office of Water (202) 260-7288 Flowers.John@epa.gov http://www.epa.gov/owmitnet/wave_01.htm
Common Sense Initiative (CSI) Iron and Steel Sector	Iron and Steel	CSI promoted "cleaner, cheaper, and smarter" approaches to environmental protection through an industry based, multi-stakeholder, consensus process. Projects and activities were conducted under the auspices of an EPA-sponsored Federal Advisory Committee. (See CSI under Office of Reinvention)	Judy Hecht, Office of Water (202) 260-5682 Hecht.Judy@epa.gov http://www.epa.gov/commonsense

Office of Reinvention

Program Name	Sector(s)	Description	Contact Information
Common Sense Initiative (CSI)	Automobile Manufacturing; Computers & Electronics; Iron & Steel; Metal Finishing; Petroleum Refining; and Printing	CSI developed "cleaner, cheaper, and smarter" approaches to environmental protection through an industry-based, multi-stakeholder, consensus process. The CSI Council had two roles—addressing challenges common to CSI Sectors and ensuring the successful attainment of CSI goals through the Sectors. Subcommittees worked on various core Agency activities such as regulatory development, permitting, record keeping and reporting, compliance and enforcement, Pollution Prevention (P2), environmental technology, and community involvement. CSI operated as a Federal Advisory Committee from 1994-1998. More than 40 CSI projects were conducted in more than a dozen states.	Kathleen Bailey, Office of Reinvention Programs (202) 260-3413 Bailey.Kathleen@epa.gov http://www.epa.gov/commonsense
Project XL (Excellence and Leadership)	Facility-Based Industry Projects	Part of EPA's *Partners for the Environment*. Project XL provides regulated entities an opportunity to develop models for a new, performance-based environmental management system for the next century–one that emphasizes better bottom-line results for protecting public health and the environment. The goal is for 50 projects to be proposed or under implementation by end of 1999. Projects are identified through a selection process based on key project elements, such as superior environmental performance, regulatory flexibility and stakeholder involvement.	Chris Knopes, Office of Reinvention Programs (202) 260-9298 Knopes.Christopher@epa.gov http://www.epa.gov/ProjectXL

Office of Research and Development

Program Name	Sector(s)	Description	Contact Information
Technology for a Sustainable Environment	Chemical manufacturers; manufacturers of products that use chemicals, and various sectors which benefit from environmentally conscious design and manufacturing	The Technology for a Sustainable Environment (TSE) Grant Program, available from the Office of Research and Development, specifically the EPA/National Science Foundation Partnership, addresses the technological and environmental issues of design, synthesis, processing, production, and use of product in continuous and discrete manufacturing industries. The TSE program invites research proposals that advance the development and utilization of innovative technologies and approaches directed at avoiding or minimizing the use or generation of hazardous substances. Eligible applicants include academic and nonprofit institutions located in the United States, and state or local governments.	Barbara Karn, National Center for Environmental Research and Quality Assurance (202) 564-6824 Karn.Barbara@epa.gov http://www.epa.gov/ncerqa

Office of Research and Development

Program Name	Sector(s)	Description	Contact Information
Common Sense Initiative (CSI) Metal Finishing Sector	Metal Finishing	CSI promoted "cleaner, cheaper, and smarter" approaches to environmental protection through an industry based, multi-stakeholder, consensus process. Projects and activities were conducted under the auspices of an EPA-sponsored Federal Advisory Committee. (See CSI under Office of Reinvention)	Paul Shapiro, National Center for Environmental Research and Quality Assurance (202) 564-6833 Shapiro.Paul@epa.gov http://www.epa.gov/commonsense

Region 1–Boston

Program Name	Sector(s)	Description	Contact Information
Center for Environmental Industry and Technology (CEIT)	Environmental technology industry	The CEIT is a catalyst for bringing new environmental technologies to the marketplace and addressing the concerns for the development and acceptance of new technologies. It addresses the needs of the environmental technology industry in New England by improving access to state and federal programs; offering technology demonstration and evaluation opportunities; expanding access to capital; bringing down regulatory and institutional barriers; and marketing environmental products and innovative technologies both in US and abroad.	Carol Kilbride, Office of Environmental Stewardship (617) 918-1831 Kilbride.Carol@epamail.epa.gov www.epa.gov/region01/steward/ceit/
CLEAN Pollution Prevention Pilot Project	Small and medium sized businesses; metal finishing; printing; and wood product coaters	Part of EPA's *Partners for the Environment*. The CLEAN initiative is a multi-media pollution prevention (P2) and enforcement amnesty pilot project that provides incentives for improved environmental performance to small-and medium-sized businesses in the metal finishing, printing, and wood products industries. It seeks to achieve measurable environmental results and increased compliance. It has conducted no-cost CLEAN assessments at approximately 60 facilities in Maine, New Hampshire, and Rhode Island. The program was conducted within the Common Sense Initiative Metal Finishing Sector.	Jean Holbrook, Office of Environmental Stewardship (617) 918-1816 Holbrook.Jean@epa.gov www.epa.gov/region01/steward/clean/
New England Environmental Assistance Team	Municipalities; auto repair & refinishing; metal finishing; printing; wood product coatings; and schools (vocational, trade, and technical)	Part of EPA's *Partners for the Environment*. This program complements EPA's traditional command-and control role with a more accessible, flexible assistance program. It provides industries with information on how to comply with regulatory requirements and how to minimize waste.	Mary Dever (617)918-1717 Dever.Mary@epa.gov Mark Mahoney (617) 918-1842 Mahoney.Mark@epa.gov www.epa.gov/region01/steward/neeat/

Region 1–Boston

Program Name	Sector(s)	Description	Contact Information
Common Sense Initiative (CSI) Computers & Electronics Sector	Computers & Electronics	CSI promoted "cleaner, cheaper, and smarter" approaches to environmental protection through an industry based, multi-stakeholder, consensus process. Projects and activities were conducted under the auspices of an EPA-sponsored Federal Advisory Committee. (See CSI under Office of Reinvention)	Mark Mahoney, Office of Environmental Stewardship (617) 918-1842 Mahoney.Mark@epa.gov www.epa.gov/commonsense

Region 2–New York

Program Name	Sector(s)	Description	Contact Information
Sustainable Industry-The New Jersey Chemical Industry Project	Batch Chemical Industry in New Jersey	The New Jersey Chemical Industry Project is an effort to assess current environmental protection strategies on a sector basis and develop better environmental approaches. The project focuses on four pilots: materials recycling across and within facilities; flexible track for good environmental performers; trading effluent limits; and compliance assistance. This project builds on the work of the Chemical Operations Group of the President's Council on Sustainable Development (PCSD). The project has identified and analyzed corporate decision-making factors that affect environmental performance at batch process chemical manufacturing facilities in New Jersey. New environmental protection strategies are being tested with a small number of facilities. The strategies relate to permitting, reporting, process changes to reduce emissions, voluntary performance programs, and other types of flexibility in exchange for better environmental results.	Stan Siegel, Division of Environmental Planning and Protection (212) 637-3701 Siegel.Stan@epa.gov www.epa.gov/oppe/isd/nj/home.htm
Common Sense Initiative (CSI) Printing Sector	Printing	CSI promoted "cleaner, cheaper, and smarter" approaches to environmental protection through an industry based, multi-stakeholder, consensus process. Projects and activities were conducted under the auspices of an EPA-sponsored Federal Advisory Committee. (See CSI under Office of Reinvention)	Stan Siegel, Division of Environmental Planning and Protection (212) 637-3701 Siegel.Stan@epa.gov www.epa.gov/commonsense

Region 4–Atlanta

Program Name	Sector(s)	Description	Contact Information
Common Sense Initiative (CSI) Automotive Manufacturing Sector	Automobile Manufacturing	CSI promoted "cleaner, cheaper, and smarter" approaches to environmental protection through an industry based, multi-stakeholder, consensus process. Projects and activities were conducted under the auspices of an EPA-sponsored Federal Advisory Committee. (See CSI under Office of Reinvention)	Alan Powell (404) 562-9045 Powell.Alan@epa.gov http://www.epa.gov/commonsense

Region 5–Chicago

Program Name	Sector(s)	Description	Contact Information
The Great Printers Project	Great Lakes States Lithographic Printing Industry	The Great Printers Project is a concerted effort to inform printers about the merits of integrating pollution prevention into shop operations in order to reduce environmental releases or emissions, and to save money. The project is a partnership of the Council of Great Lakes Governors, the Environmental Defense Fund, and the Printing Industries of America. The projects' recommendations focus on enrolling print shops committed to furthering "Great Printers principles;" informing and influencing customer demands, simplifying and streamlining regulatory requirements for printers, and improving industry-specific access to technology and financial resources.	Phil Kaplan, Waste Pesticide and Toxics Division (312) 353-4669 Kaplan.Phil@epa.gov http://www.epa.gov/ooaujeag/notebook/gpp
Common Sense Initiative (CSI) Iron and Steel Sector	Iron and Steel	CSI promoted "cleaner, cheaper, and smarter" approaches to environmental protection through an industry based, multi-stakeholder, consensus process. Projects and activities were conducted under the auspices of an EPA-sponsored Federal Advisory Committee. (See CSI under Office of Reinvention)	Ed Wojciechowski, (312) 886-6785 Wojciechowski.Edward@epa.gov http://www.epa.gov/commonsense

Region 6–Dallas

Program Name	Sector(s)	Description	Contact Information
Common Sense Initiative (CSI) Petroleum Refining Sector	Petroleum Refining	CSI promoted "cleaner, cheaper, and smarter" approaches to environmental protection through an industry based, multi-stakeholder, consensus process. Projects and activities were conducted under the auspices of an EPA-sponsored Federal Advisory Committee. (See CSI under Office of Reinvention)	Craig Weeks (214) 665-7505 Weeks.Craig@epa.gov www.epa.gov/commonsense

Region 9–San Francisco

Program Name	Sector(s)	Description	Contact Information
Agriculture Initiative	Agriculture	This initiative promotes multi-media agricultural pollution prevention. The initiative provides financial and programmatic support for the implementation of community-based educational models that are flexible, voluntary, and locally-based. This practical, farmer-to-farmer model, provides alternative technologies that maintain producers' profitability while reducing harm to human health and the environment.	Paul Augie Feder (415) 744-2010 feder.paul@epa.gov
Common Sense Initiative (CSI) Computers & Electronics Sector	Computers & Electronics	CSI promoted "cleaner, cheaper, and smarter" approaches to environmental protection through an industry based, multi-stakeholder, consensus process. Projects and activities were conducted under the auspices of an EPA-sponsored Federal Advisory Committee. (See CSI under Office of Reinvention)	Dave Jones (415)744-2266 Jones.DavidB@epa.gov www.epa.gov/commonsense

Region 10–Seattle

Program Name	Sector(s)	Description	Contact Information
Idaho One Plan	Agriculture (farmers and ranchers)	The Idaho One Plan project is a joint effort by state and federal agencies, commodity groups, and associations to streamline farm and ranch planning for Idaho's agricultural producers. The One Plan process is an interactive, online program to help Idaho producers develop a single, voluntary multi-program plan that will satisfy all agencies.	Warren McFall (208)-378-5759 McFall.Warren@epa.gov www.oneplan.state.id.us

Table 2 - FY 99 SBEP Action Plan Summary

Subject	Actions			
	Strategies (What)	**Actions Processes/Activities (How)**	**Timetable (When)**	**Lead (Who)**
A. *Implement sector-based approaches within Agency core functions*	(1) Permitting: Work with regions and states to conduct sector-based permitting projects.	(a)OAQPS in conjunction with Region II and X is working to develop a P4 pilot with the pharmaceutical sector. (b) Region I is working with the Massachusetts Environmental Results Program on small business sector (e.g., printers, photo processing, dry cleaners) self-certification programs. (c) OP is working with several Regions and States to develop sector-based permit models to expand P4 concepts to other media. Participating offices: OP, OAR, OECA, Regions I, II and X	FY1999	(a) Mike Trutna, OAQPS (919) 541-5345 (b) Thomas D'Avanzo, Region I (617) 918-1801 (c) Barry Elman, OP (202) 260-2727
	(2) Rulemaking: Identify and initiate coordinated rulemakings.	OR is reviewing the regulatory agenda with EPA national programs to identify potential candidates for multi-media rulemaking coordination. Participating offices: OSWER, OAR, OW, and OGC	FY1999	Gregory Ondich, OR (202) 260-4822
	(3) Enforcement and Compliance Assurance: Implement sector strategies to achieve a higher level of efficiency in enforcement and compliance activities.	(a) OECA is developing and implementing National Sector Strategies with the Regions and States to enhance commitments for compliance assurance sectors. (b) Region IV is working with several States to develop a POTW initiative. Participating offices: All EPA program offices and regions	FY1999	(a) Suzanne Childress, OECA (202) 564-7018 Bob Tolpa OECA (202) 564-2337 (b) Roy Herwig, Region IV (404) 562-9758

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Subject	Actions			
	Strategies (What)	Actions Processes/Activities (How)	Timetable (When)	Lead (Who)
A. *Implement sector-based approaches within Agency core functions (continued)*	(4) Solving Regional Problems: Implement sector-based projects to address Regional priority problems.	(a) Region III is working with Pennsylvania and four POTWs to develop a Metal Finishing Strategic Goals Program project. (b) Region III is working with Pennsylvania to develop a watershed initiative with the glass industry in Western Pennsylvania. (c) Region IX is working with the California agricultural industry on sustainable development projects. (d) Region X is working with several states on a mining initiative to accelerate abandoned mine land cleanup. Participating offices: All EPA Regions	FY1999	(a) Albert Montague, Region III (215) 814-5562 (b) Beth Termini, Region III (215) 814-2695 (c) Paul Augie Feder, Region IX (415) 744-2010 (d) Nicholas Ceto, Region X (206) 553-1816

Subject	Actions			
	Strategies (What)	Actions Processes/Activities (How)	Timetable (When)	Lead (Who)
A. *Implement sector-based approaches within Agency core functions (continued)*	(5) Building Partnerships: Work with the private sector to improve environmental performance.	(a) OP is continuing the development of policy "roadmaps" for seven different economic sectors. (b) OP is implementing the National Metal Finishing Strategic Goals Program nationwide to achieve Year 2002 performance targets. (c) DfE is working with the flexible foam furniture industry to develop cleaner production practices in their manufacturing operations. (d) OR is working collaboratively with industry partners to develop benchmarks, voluntary performance measures, and industry frameworks for sector-based approaches. Participating offices: OP, OPPTS OECA, OSWER, and all EPA Regions	FY1999	(a) Bob Benson, OP (202) 260-8668 (b) Bob Benson, OP (202) 260-8668 (c) John Sparks, OPPTS (202) 260-1682 Bill Hanson, OPPTS (202) 260-0686 (d) Greg Ondich, OR (202) 260-4822
	(6) Research: Looking for new pollution prevention and technology solutions.	(a) ORD is implementing in conjunction with other CSI stakeholders the National Metal Finishing Environmental R&D Plan in support of the CSI Metal Finishing Strategic Goals Program. (b) ORD and NSF are conducting research to identify innovative pollution prevention technologies and tools to improve environmental performance within several sectors (i.e., chemicals, coatings, fabric cleaning). Participating offices: OR, OAR, OW, OSW, OPPTS, and OECA	FY1999	(a) Paul Shapiro, ORD (202) 564-6833 Dave Ferguson, ORD (513) 569-7518 (b) Steve Lingle, ORD (202) 564-6821 Barbara Karn, ORD (202) 564-6824

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Subject	Actions			
	Strategies (What)	Actions Processes/Activities (How)	Timetable (When)	Lead (Who)
A. *Implement sector-based approaches within Agency core functions (continued)*	(7) International Activities: Incorporate sector-based approaches into international activities.	OIA is developing sector-based activities to achieve reductions of global and cross-border environmental risks. Participating offices: OAR, OW, OSWER, OPPTS, and all EPA Regions	FY1999	Ted MacDonald, OIA (202) 564-6114
B. *Build management capacity to conduct SBEP and remove barriers*	(1) Implement strategic management of sector-based efforts.	OR is working with EPA program offices in their preparation of annual plans to identify sector-based work that will support the Agency Strategic Plan and GPRA. Participating offices: OCFO, OAR, OW, OSWER, OECA, and OPPTS	FY1999	Greg Ondich, OR (202) 260-4822
	(2) Create avenues to share information and analyses.	(a) OR is assisting EPA program offices in using industrial classification systems to identify sector work in rules, policies, and program guidance. (b) OR is developing a sector-based Internet Website to identify cross-agency information in an efficient and easy-to-use format. Participating offices: OARM, OAR, OW, OSWER, OPPTS, OGC, and OECA	FY1999	(a) Tim Torma, OR (202) 260-5180 (b) Kim Green-Goldsborough, OR (202) 260-4297 Daria Willis, OR (202) 260-3125

Subject	Actions		Timetable (When)	Lead (Who)
	Strategies (What)	Actions Processes/Activities (How)		
B. Build management capacity to conduct SBEP and remove barriers (continued)	(3) Expand analytical knowledge of sector-based activities.	(a)OR is surveying the availability of sector-based tools across the Agency. (b) OR is examining past coordinated rulemakings across the Agency to gather information on lessons learned. Participating offices: All EPA program offices and regions	FY1999	(a) Katherine Dawes, OR (202) 260-8394 (b) Katherine Dawes, OR (202) 260-8394
	(4) Conduct evaluations of sector-based activities for continuous improvement.	OR is conducting an independent contractor evaluation of the more than four-year operation of the Common Sense Initiative. Participating offices: CSI Program and all EPA program and regional offices	FY1999	Katherine Dawes, OR (202) 260- 8394 Sandra Panetta, OR (202) 260-6632
	(5) Create internal sector-based incentives for EPA staff.	OR is establishing mechanisms to recognize individual and group contributions to sector-based activities. Participating offices: All program and regional offices	FY1999	Karen Flagstad, OR (202) 260-9093
C. *Craft sector-based solutions with external stakeholders*	(1) Create FACA sector committee.	OR is creating a Federal Advisory Committee Act (FACA) sponsored committee to provide advice and consultation to the Agency on sector-based issues. Participating offices: All EPA program offices and regions	FY1999	Kathleen Bailey, OR (202) 260-3413
	(2) Investigate how SBEP can address longer term high priority problems.	SAB is reviewing the role of science in sector-based approaches and suggesting ways in which the quality of science in these approaches can be optimized. Participating offices: All EPA program offices and regions	FY1999	Angela Nugent, SAB (202) 260-5871

Subject	Actions			
	Strategies **(What)**	Actions **Processes/Activities** **(How)**	Timetable **(When)**	Lead **(Who)**
C. *Craft sector-based solutions with external stakeholders (continued)*	(3) Investigate use of sector-based liaisons.	OR is evaluating the Iron and Steel liaisons project to determine the feasibility of establishing single points of contact for other sectors. Participating offices: OW, OR, and Region V	FY1999	Katherine Dawes, OR (202) 260-8394
	(4) Implement stakeholder action plan.	OR is implementing a Stakeholder Involvement Action Plan. Participating offices: All EPA program offices and regions	FY1999	Kathleen Bailey, OR (202) 260-3413

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Abbreviation List
Table 2 - SBEP Action Plan Summary

CSI - Common Sense Initiative
DfE- Design for the Environment
FACA - Federal Advisory Committee Act
GPRA - Government Performance and Results Act
NAICS - North American Industry Classification System
NSF - National Science Foundation
OAQPS - Office of Air Quality Planning and Standards
OAR - Office of Air and Radiation
OARM - Office of Administration and Resources Management
OCFO - Office of Chief Financial Officer
OECA - Office of Enforcement and Compliance Assurance
OGC - Office of General Counsel
OIA - Office of International Activities
OP - Office of Policy
OPPTS - Office of Prevention, Pesticides, and Toxic Substances
OR - Office of Reinvention
ORD - Office of Research and Development
OSWER - Office of Solid Waste and Emergency Response
OW - Office of Water
POTW - Publicly Owned Treatment Works
P4 - Pollution Prevention in Permitting Program
R&D - Research and Development
SAB - Science Advisory Board
SBEP - Sector-Based Environmental Protection
SIC - Standard Industrial Classification